

AN INTRODUCTION TO KARACHI:

ITS ENVIRONS AND HINTERLAND

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PRESS OPINION

"Dr. Pithawalla's knowledge of the geography of Sind is unrivalled. He is our first geographical researcher to receive the Doctorate of Science and has received the warmest tributes of academic colleagues all over the world. He has seventeen publications to his credit. And indeed in the words of a book review that appeared in the paper six years ago, he may rightly be called the *pioneer of regional geographical research in this country*. His knowledge of the geography Dr. Pithawalla applies practically Any pronouncement of his on the Sukkur Barrage should also be most carefully considered, for it has behind it the authority of specialised scholarship."

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TO
MY NOBLE MOTHER SUNABAT
WHO OFFERED TO SELL
HER ONLY GOLD BANGLES
TO HELP ME IN MY COLLEGE STUDIES.

FOREWORD

The need of a suitable introductory treatise on the city of Karachi and its environs has been keenly felt for a long time and, with the permanent establishment of the Government of Pakistan in the city, this need has become greater than ever before. In 1946, the present author published an exhaustive study of the Karachi area, entitled "Geology and Geography of Karachi and its Neighbourhood" in two Parts. Owing to the difficulties of printing and publishing books at the time, only a limited number of copies of it was issued and the publication is now out of print. Before a second edition of it can be prepared, it is hoped that this little book will help persons interested in the city, particularly students and tourists.

Though haphazardly extended on almost every side from time to time, the city is attractive and well worth visiting. It is beautiful, if not grand; habitable, if not quite healthy; and growing, if not industrially yet. If it is to be the worthy capital of the Dominion of Pakistan, it needs a Master Plan reminiscent of its oriental character, its brief but brilliant past and its great future. Such a plan has been already indicated by the author in his Karachi monograph. Although only a century old, the present city has decidedly outgrown its limits. Its water supply as well as its drainage system is far from satisfactory. In spite of the fact that Karachi now enjoys a much higher status than before and has a dignity of its own as the proud capital of Pakistan, its destiny is closely linked with that of its parent province of Sind. Sind's prosperity is Karachi's prosperity no doubt. To this very book, therefore, a brief chapter on Sind has been added towards the end, particularly for the benefit of those who wish to explore the hinterland and who want to help in national planning work in the province.

The success of such a book depends upon the co-operation of the readers. Everyday some new changes are taking place in the city. The author is conscious that even before this book is out, some information or the other

will be out of date or lacking in its contents. If, therefore, the readers notice in this publication any such information, any mis-statements, omissions or changes that have taken place, they will render not only a great help to the author but also a real service to the city, by informing him about the same.

There can be very little originality in a work of this kind. In fact it is a compilation with some reflexions here and there. The author is indebted to the Government reports and publications, particularly the year books and the Census Reports of Karachi. He has found "The Karachi Handbook and Directory for 1927-28", edited by Sir Montagu de Webb and published by the Daily Gazette Press, Ltd., very useful and instructive; but, unfortunately the subsequent issues of the Directory are not to be found. Personal enquiries and experiences have also helped the author to make this hand-book as up-to-date as possible.

JAMSHEDI NAOROZ,

M. B. P.

21st March 1949.

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PLATES TO ACCOMPANY

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- I. Map of Greater Karachi, showing the Scheme of Satellites, etc. (Inset : Mascall's Sketch Map of Karachi Harbour 1774).
- II. Road Map of Karachi, showing Streets, Roads, and the Bus and Tram Routes.
- III. Aerial Photograph, showing the Keamari Harbour, West Wharf, and a portion of the City.
- IV. Photograph, showing the Manora Breakwaters.
- V. Map of Western Sind, showing Ground Contours, Hot Springs, Drainage Channels, Lines of Communications, etc.
(Inset : Khadeji Waterfalls).
- VI. 1 to 15 Photographs showing Well-known Places and Phases of Karachi Life and Environment.

CHAPTER I

INTRODUCING THE CITY

Karachi is now the capital city of the young Dominion of Pakistan. It has been the "Glory of the East", the "Liverpool of India and Pakistan" and the "Croydon of the East". It rose to be the first Air Port and the third Sea Port of the undivided India within a brief period of 100 years, having been established by Sir Charles Napier in 1843. It is a queenly city, grown to be Sind's metropolis amidst the innumerable and unstable villages in the province, the only other city worth the name being Hyderabad, the old capital of the Sindhi Mirs. No other city in India or Pakistan has had such a brief history but at the same time such a rapid rise and such an extraordinary growth.

A mere fishing village, it grew at first, in the days of its Hindu traders, to be a town of "low mud hovels and tall mud houses with flat mud roofs", mud being plentifully found in the adjoining Lyari valley; then during the last four decades it had quite a phenomenal growth with over 600% rise in population. The census of 1941 disclosed its strength to be 3,86,655 and just before the Partition in August 1947, it boasted of thousands of palatial buildings and a population of nearly 425,000 which, due to the influx of the refugees and others from the sister Dominion, is now said to have increased to almost 1,000,000 people, with a very solid Muslim majority. As the capital of Sind it covered in its extended form an area of nearly 72 square miles as far as Mauripur on the west, the trans-Lyari quarters on the north-west, a few scattered hills on the north and north-east, the dry Malir river valley on the east and the south-east and the Manora Island, Oyster Rocks and the Clifton and Ghizri Beach on the south. With the establishment of the capital of Pakistan in the city, it has been

contemplated to build Greater Karachi, a metropolis enormously extended to cover an area of over 20,000 acres, so that there may be established in this locality a capital city, worthy of the world's largest Muslim State.

Karachi owes its greatness to its unique location at the extreme west-end of the Indus delta (latitude 24°51' north and longitude 67°4' east) and its most favourable geographical situation as a centre of three great continents, Europe, Africa and Asia, some 200 miles nearer to Southampton and 400 miles nearer to Croydon than the city of Bombay, besides commanding the Arabian Sea and the Indian Ocean. It is actually 4,903 miles distant from the air-fields of Croydon and 9,792 miles from the city of New York, by air, taking hardly 24 and 48 flying hours, respectively, by the direct routes.

Among its many attractions may be mentioned the following :

There is a harbour, partly artificial and partly natural, and protected by the solid rock of Manora at the very mouth of the Lyari. It has a vast and rich hinterland, covering not only the whole of the Indus Valley but also parts of the neighbouring Iran plateau. It took the British engineers some 60 years to build the harbour and to have Karachi declared as a first-class port in 1907. Before the last World War the sea-borne trade was nearly 52 crores of rupees. The import and export trade of Karachi exceeds 22 lakhs of tons at present, while the unloaded and off-loaded air mails come to over 100,000 lbs.

Although it lies on the outskirts of the Thar desert on the one side and the dry parts of Baluchistan and Makran on the other, it has an equable climate throughout the year, due to the influence of the sea and the south-west monsoon and in spite of very scanty and variable rainfall, the eastern and western depressions causing cyclonic storms and the frequently varying weather conditions during the year.

It has a very wide scope for expansion almost on every side, except towards the sea coast in the south, so that it gives an excellent opportunity to the city's town-planners to provide for zonal planning with several satellite towns around the parent city.

In spite of the province being largely Muslim in character, Karachi has all along been one of the most cosmopolitan cities in the East. According to the last census, it had actually a Hindu majority of population. With the influx of the refugees a new impetus has been given to the city's growth and culture.

Most of the Karachi-ites, both new and old, are engaged in trade and business, which the harbour and the hinterland richly afford. It is a pointer to an all-Pakistan civilisation, so urgently needed in our country today. It is expected that from the clash of various cultures, which have now gathered together after the Partition of India, Karachi will rise higher and higher. With its door opened widely towards the sea, the world's men and materials can still go on entering. Thus it is likely to remain fresh and rejuvenated for all future times.

KARACHI AT A GLANCE

The accompanying map of Karachi will help the visitors to see the city at a glance and to keep their bearings in some of its crowded parts. The two dry river beds, one on the left and the other on the right, are the most prominent landmarks. The city is actually sandwiched between them. The area shaded dark marks the cantonment limits with the Keamari harbour to its extreme south-west, while some of the well laid-out and fashionable parts of the city are in the Civil Lines and Saddar Bazar, in which areas English is spoken side by side with Urdu. Most of the new Colonies are established like a ribbon growth on both sides of the Bundar Road, which is the most important and busiest thoroughfare in Karachi. Other main roads lead the visitors to the suburbs and satellites, forming the frame-work of Greater Karachi,

which is now in the making. The fringes of hilly Kohistan just touch Karachi in the north, which circumstance has helped the city with the building materials, stone quarries, water works, high level reservoirs and other sites. A vast open space is noticeable towards the north-east of the city so that there is good scope for expanding the city particularly in this direction.

CHAPTER II

APPROACH TO KARACHI

Karachi's beauty is not only in its inherent natural features but also in the approach to it from different directions. Modern scientific transport has enabled the people to travel here by air, sea and land quickly and conveniently. In all these three ways the journey to Karachi is not only pleasant but also instructive.

1. BY AIR

The approach to the city by air is exceptionally attractive on account of the blue sky, the clear visibility, the favourable wind directions, the extensive landing grounds and the absence of any natural barriers. These circumstances enable the passengers to see the city from a distance of many miles. The route is easy to operate and the landing is facilitated by the most suitable runways, dry grounds and enormous open fields. While passing through Karachi, aeroplanes from the west to the east follow the old caravan routes across the continent of Asia.

A visitor to Karachi arriving from the south by air and flying at a low height can easily discern on his extreme right the exceptionally low and irregular coastal line forming the growing delta of the classic Indus river. Passengers by aeroplane arriving from the West along the Makran coast will see other beauties of the vast Baluchistan plateau, sandy river beds and some mud volcanoes, until they reach the only perennial river Hab, which marks the boundary between Makran and Sind. A few creeks and small bays are noticed on this side. As the plane moves northwards and eastwards, small gulfs and shallow mangrove swamps with the waterless bed of the Malir are found. A few flat-topped hills, which were once sea-girt islands, are noticeable towards the right, while, towards the left, the smaller river Lyari opens its mouth into the Keamari harbour, where the visitor can find one of the busiest ports in the world. In

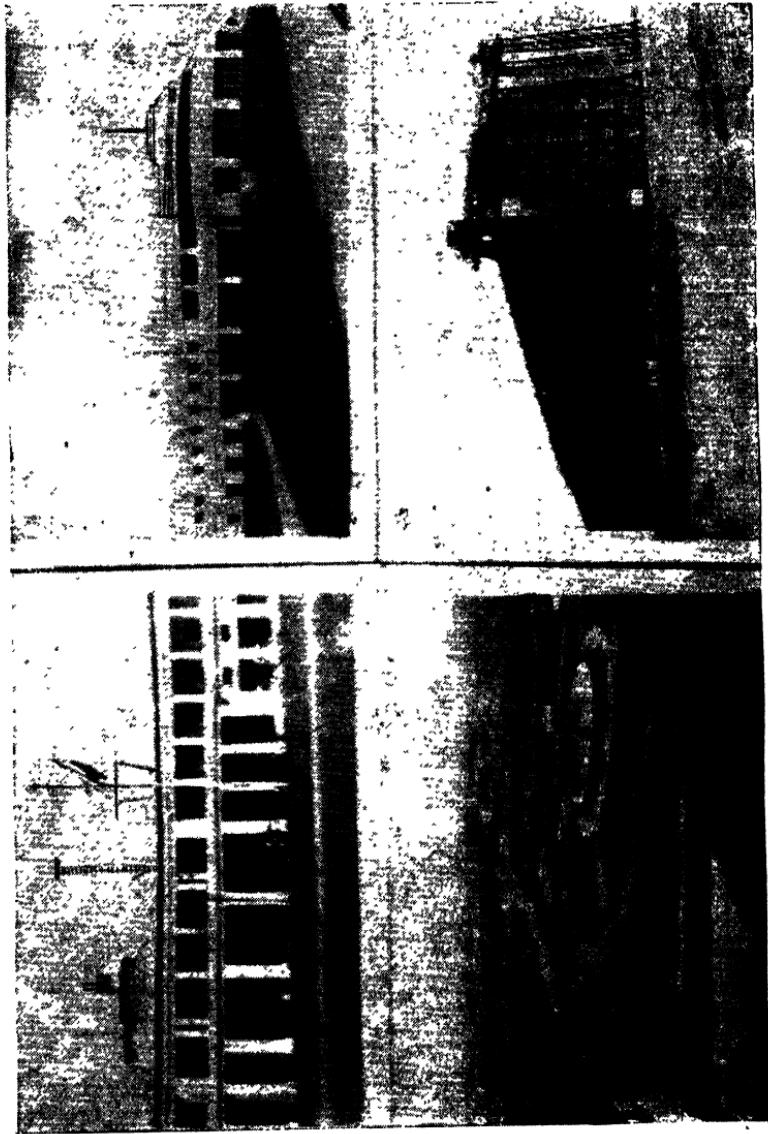
the centre, the congested heart of the city, the Old Town, looks like a tiny living spot amidst the vast expanse of space. Then the more modern and well-planned quarters of Saddar Bazar, the Civil Lines and the Cantonment area are seen. Towards the north-east and beyond the congested Lyari quarters a few arterial roads, especially the 10-mile long Bundar Road and its Extension are marked. In the same direction, as the flight continues, there can be discerned a strange ribbon-like growth of the numerous colonies on the left and some barren and rocky outcrops on the right with the most prominent Exhibition Hill, now containing the last remains of the architect and first Governor-General of Pakistan.

Seen from the air the city appears to be a hybrid, due to its irregular labyrinths, its crowded hovels and godowns in the heart of the city and a properly oriented new town with rectangular blocks on wide roads and some of the public and private buildings of Saddar Bazar and Civil Lines. The visitor can also discern from the air some of the most massive stone structures, *viz.*, the Kothari Parade and Lady Lloyd Pier at Clifton, and the Governor-General's House, the Consembly Buildings, the High Court and Municipal Buildings in the middle of the city. Far in the distance can be marked the Mauripur Air Port and the General Headquarters of the R. P. A. F. on one side and the Drigh Road Halt Station on the other. At the West Wharf Marine Air Port and also at Korangi Creek, beyond the Malir river towards the east, passengers travelling by sea planes can land safely.

Karachi is exceptionally lucky in its expansion of these air ports during recent years. Passengers and goods to and from all parts of the world are handled here. Easily can it be styled the "Crew of the Skyways", as a powerful impetus was received by it during the air operations of the last World War. During 1945 actually, several lakhs of pounds of freight and some 5,000 passengers were handled per month. But these figures are only fractions of those of the present day. About 500 day and 500 night landings are made in Karachi nowadays.

AN INTRODUCTION TO KARACHI

SEA AND AIR PORTS



Thousands of passengers and nearly a lakh of pounds of freight are dealt with monthly even now. The B. O. A. C., Pan-American Airways, Air France, K. L. M., Iranian and Iraqi Airways and other companies use our airport. Two more Pakistani Airlines, the Orient Airways and the Pak Air are to start operations on the Indo-Pakistan and foreign routes soon. With the fastest machines now operating, the distance between Karachi and London can be covered in 24 hours, non-stop. This is a great achievement of the flying world. Not to and from one country but several countries the traffic is going on. European and American tourists, officials from almost all countries and businessmen from far-off centres gather here almost every day. Among the facilities provided at the Air-port are a Radar Homing Aid Device, a Radio Range and Beacons, a restaurant and hotel, a quarantine and isolation hospital, and an air cinema. Karachi's very location is so fortunate that it has become a most natural geographical centre of almost all world air routes. Thus Karachi and Pakistan are becoming gradually a centre of the flying world. A writer in the *Illustrated Weekly of India* some time ago has put it beautifully : "Where once camels roamed and kites hovered undisturbed over mud and sand wastes of Sind desert's coastal strip, is now the busiest air port in the world. Karachi, ancient gateway to India from the Arabian Sea, is now the cross-roads of the skies. The hundreds of tarmacadam acres of its three aerodromes and the sheltered waters of a dockland creek hourly carpet the arrival and departure of land and sea planes flying to the four corners of the earth."

2. BY SEA

The journey by sea towards Karachi is equally interesting, though not so thrilling as by air. Although the whole Sind coast is uninviting on account of the unstable delta land, the solid rock of Manora has given the Karachi harbour a more or less permanent security. Ocean-going steamers from foreign countries and coasting

steamers from India and the Persian Gulf find their berths here. Numerous native jetties also arrive here from Indian ports such as those of Calcutta, Madras, Bombay, Cutch and Kathiawar. These tiny native boats still persist in spite of the large steamers belonging to different nationalities, so lucrative is the coastal trade. The Scindia Steam Navigation Co., Bombay Persian Steam Navigation Co., Asiatic Steam Navigation Co., and P. & O., City and Hall Lines, all have their bee-hives here.

Here, too, the arrival at the port of Karachi is attractive. Due to low levels of the Karachi city, hardly exceeding 50 feet above sea level, the city is not quite visible even by day as the steamer approaches, but the passengers can catch a glimpse of the Cape Monze and the Hab and Mangho Pir hills easily in the distance. The night arrival is particularly attractive by the flash lights of the Manora and Cape Monze lighthouses, which can be seen from even a distance of 70 miles, weather permitting. Here is found a wide semi-circular harbour, with a lagoon in the centre. As the ship doubles the Manora point, the Keamari docks are found on the right and the West Wharf with the Sandspit and the Baba and Bhit islands on the left. During the last 60 years and more, much has been done by the Karachi Port Trust for the betterment of the harbour. The numerous docks, the Napier Mole, the Keamari Groyne, the East Pier, the Chinna Creek, the Manora Break-waters, the West Wharf and the Marine Air Port, etc., have helped to make Keamari a first-class harbour. A dry dock, both for the Navy and the Mercantile Marine, has been projected. Both the World Wars have stimulated the development of Keamari during the present century. Enormous reclamation work has been done and several square miles of land have been reclaimed from the mangrove swamps surrounding the harbour, by means of intense dredging and dumping of the material into the swamps. The Lido is also rapidly converted into a port of flying boats both for the Royal Pakistan Airways and for civil aviation. Thus Keamari can be called a doubly advantageous haven and a prosperous port. The total tonnage

of overseas trade at the Karachi harbour was nearly 3 million tons and fetched an income of Rs. 107 crores with a daily average of 7,800 tons in 1944 for the city. The pre-war average of the total export trade of Karachi was only 48 crores of rupees. The coming of the Pakistan Government into this new capital is a happy augury for the future of this lucky harbour. A number of shipping companies, European, Indian and Pakistani, have been established for services to Europe, U. S. A. and the Middle East. The Muhammadi Steamship Co. has started both a passenger and a cargo service from Karachi to Chittagong.

The sea routes to Karachi are from the African and Arabian ports, through the Persian Gulf; and those of Europe, through the Suez Canal, *via* Aden. Others are from China and Japan, *via* Colombo. Coastal steamers ply weekly between Karachi and the Indian ports. During the monsoon period, i.e., from May to August, the coastal trade is held up for a while due to the onslaught of the monsoon, when the sea is very rough and storms are frequent. There is a good smooth coastal sailing thereafter during the winter season. On the whole, the sea journey to Karachi from far and near is pleasant, instructive and profitable.

3. BY LAND

The journey by land to the capital of Pakistan, also instructive and profitable, is not so delightful. Being on the fringe of the desert, dust and glare are the greatest nuisance. There is always a scarcity of fresh water on the routes. After the successful operation of the Sukkur Barrage the railway journeys in some parts of the Indus Valley have become delightful, the desert having grown into a garden and for many miles the green fields of Sind afford some joy in an otherwise dull and troublesome journey. Motorable roads to Karachi from outside are practically non-existent. In fact, there are few trunk roads in Sind. The Arab trade routes from the West did exist for centuries and through some of the mountain passes such as the Bolan, Gomal, Tochi, etc., in the Kirthar

range, men and materials moved into the province. The Arab hordes under Mohammad-bin-Kassim also used the Makran route through Las Bela to give battle to the Hindu King of Alor, but they found no roads worth the name and had to cross and re-cross the river by improvising boat bridges. Today the Kotri and Sukkur railway bridges are the only important ones. Karachi is served by a singular railway,—the North Western Railway, from Peshawar to Karachi; Lahore to Karachi, Duzdab (Zahidan) to Quetta and Karachi. The Jodhpur Railway passes through the desert and joins the N. W. R. at Hyderabad, thus connecting Sind with Rajputana, Gujarat and Bombay with Karachi *via* Ahmedabad and Marwar. There is no direct railway to these parts of India. The only link between Delhi and Karachi now is by the Rajputana Malwa Railway *via* Bhatinda and across the Indo-Pakistan border and the frontier regulations control the link between Lahore and Amritsar. Thus hardly a couple of mail trains arrive at Karachi during the day.

Traders from Afghanistan *via* Peshawar and Chaman, from Baluchistan *via* Quetta and Sibi, from Central Asia and Kashmir *via* Murree and Rawalpindi and from Iran *via* Duzdab (Zahidan), Nushki and Quetta also find a lucrative trade here.

Most of the railway journeys in the Indus valley can be completed within 24 hours and the arrival at Karachi is heralded by the appearance of the gigantic air-ship shed and hangars of Drigh Road and the top masts of the wireless installation of the Karachi Cantonment from a distance. Passengers for the business quarters of Karachi alight at the City Station about 3 miles further, while, others find the Cantonment Station quite convenient.

By road, the journey from Karachi can be undertaken *via* Gharo, Tatta, Jhirak, Kotri, Laki, Dadu, Larkana, Shikarpur and Kashmore, *via* Thano Bola Khan, Dadu Nasirabad, Shahdadkot, Jacobabad and Kashmore, *via* Hyderabad, Badin and Cutch and *via* Hyderabad, Nawabshah, Kandiaro and Multan.

Whether one arrives by air, sea or land, one sees in Karachi a transit city, into which goods come and from which goods go, a veritable commercial city, a busy buzzing centre represented by the main road from Keamari to Bundar Road (Mahatma Gandhi and Mohammad Ali Jinnah Roads). The Old Town in the heart of the city is the marketing centre, while the chief residential parts are found in Saddar Bazar and Civil Lines. There are a few other fashionable quarters as well, *e.g.*, Staff Lines, Frere Town and the New Muslim Colony. Cultural zones are extended also in some of the colonies of the Bundar Road Extension *e.g.* New Town. There is practically no industrial township as yet established and no hill-station worthy of a capital like Karachi, except the sea-side resort of Clifton.

Life is expensive now-a-days but there are first-class hotels in Karachi both on the sea side and in the fashionable quarters for the passengers to choose from. For the greater part of the year the weather is cool and temperate but warm clothing is needed during the winter months of December, January and February. No umbrellas and rainproofs are required, as it rains hardly for a couple of days at a time during the year.

CHAPTER III

HISTORICAL BACKGROUND

Karachi has no great past to boast of. There are no ancient glories and no great historical associations here ; no gigantic monuments, no ruins, no long stories of peace or war. It is a child before the hoary old cities like Mohenjo Daro, Harappa and Delhi. The oldest archaeological site nearest to Karachi is at Orangi on the banks of the Orangi River, still flowing in a famished form through a portion of the Mongho Pir hills about 6 miles north-west of Karachi. But although Karachi has too little history, it can be said to have made sufficient progress as the trend of its past achievements show.

THE PRE-ARAB PERIOD

Quite a contrast to this is the history of the province of Sind. It has the pride of possessing the oldest prehistoric city in the Indian sub-continent, called Mohenjo Daro, which belonged to the Chalcolithic period and is perhaps not less than 5,000 years old. It possessed a kind of Dravidian culture and developed what is now known as the Indus Valley civilization. It was typical of a river valley civilization and many precious archaeological relics have been found in it, some of which are now kept in the Karachi Municipal Museum. Pottery, cotton clothes, metal works, copper ornaments, toys, etc., were well-known. The trade must have been both by land and by sea and the Indus river with Iraq and Iran, *via* the Persian Gulf. The Persians under Darius the Great conquered the whole of the Indus Valley later on. It is he who got the river surveyed for the first time under Skylax in the 6th century B.C. and gave a great stimulus to its trade by sea with the neighbouring countries. When Persia was later on conquered by the Greeks under Alexander in the 4th century B.C., Sind naturally came under his supremacy. Several new settlements were made on the banks of the Indus, such as Patala, at the very apex of the Indus delta. After

his great victories, Alexander is said to have returned *via* Las Bela, while his navy under Nearchus had to halt, due to the onslaught of the monsoon, somewhere near Karachi, a place which is spoken of as "Alexander's haven". This is perhaps the earliest historical reference that we can get about Karachi. Krokola is another Greek name, with which Karachi is identified by some scholars. Sind next came under the influence of the Tartars, the White Huns and others during the later centuries. Hindu kings were then ruling at Alor, near Rohri, the ancient Hindu capital of the Province. Sind and Hind were the two divisions of the land according to the Chachnameh. The Sindhis, as a rule, are a soft people of the soft soil, never giving a great resistance to the numerous invaders but always succumbing to them, so that when the Arabs actually arrived in 711 A.D., Sind fell an easy prey to Mohd-bin-Kassim, the hero of Sind. He, too, brought his men both by land and by sea and used the old Makran trade route for the army and the Arabian Sea for the navy. Debal, not Karachi, was then the most flourishing port some miles towards the east beside the Indus delta. After defeating the Hindus in several battles, the Arabs established new cities like Mansura within a loop of the Indus and strengthened their authority in this newly conquered territory.

The Indus river being most unstable and the periodical floods being terrific, Sind had several capitals in the past *viz.*, Patala, Alor, Brahmanabad, Mansura, Nirun, Hyderabad, Tatta, etc., all changing capital cities in a changing land. There was no permanency anywhere. Even the few ports on the delta of the Indus have changed *e.g.*, Shah Bundar, Keti Bundar, Lari Bundar, and Ghizri Bundar. The Sindhis tried to establish some reliable ports in the mouths of some of the rivers, *e.g.*, Kharak Bundar a river port on the Hab being very prominent. But the trouble about these ports was that the river mouths were ultimately silted up and they had to shift their business from place to place until the arrival of the British who searched for a more reliable and stable harbour like Karachi on the coast of Sind.

ARAB INFLUENCE

The Arabs were the first to introduce Islamic culture in Sind. Many natives were converted to Islam, including the Sindhi lords and kings. Their influence was the greatest in the formation of the Sindhi language of which the script is Arabic, while the vocabulary is largely Sanskrit. At once Sind became a Muslim-majority province and has remained so ever since. The Arab influence, with its three great legacies of the Sindhi language, the Islamic faith and the Arab culture, went on for only three centuries ; but for another thousand years and more, Sindhi kings remained under the domination of the Muslim rulers like the Afghans and the Moghals. Now and then some local chiefs declared themselves independent, as the nature of the country helped them to do so ; for instance, the desert parts of Sind became refugee centres for many of them. The history of the province is rich with the folk-lore and Sufi tales of such dynasties as the Sumras and the Summas, who were Rajputs by descent but Muslim by faith. The Arghuns and the Kalhoras were the next masters of the province. It was during the time of the Kalhoras that Karachi was made a trade centre and in 1729 when the merchants of Kharak Bundar on the Hab river had to seek another more accessible port, it received a fresh impetus from them. Karachi was ceded, later on, to the Khan of Kalat by the Kalhora Chief, but in 1795 the last native rulers, the Talpur Mirs, recovered it from the Khan.

The opening of the 19th century saw Karachi to be the chief Hindu port of Sind. According to "Memoirs of Seth Naoomal Hotchand, C.S.I.", during the first two decades there were several branches of his firm in different places. In fact about the year 1840, Karachi had quite a prosperous trade with Cutch, Kathiawar, Muscat, Bundar Abbas and even Zanzibar. Such a favourable position of the port naturally attracted the attention of the sea-faring British in 1843. After the defeat of the Talpur Mirs in the battles of Miani and Daba, the British supremacy was

formally established in Karachi, which was declared to be its new capital. "Too great a value" remarks R. H. Keneddy, "cannot possibly be placed on the possession of the harbour of Kurachy, whether as a military and naval station or as a political and commercial city". It was actually the key of the whole valley, of Sind and the Punjab, and of the approaches, both military and commercial, to Central Asia.

CONTRIBUTION OF THE BRITISH

The British found in Karachi only a fishing village with a small mud fort and a ditch, called Kalachi-jo-Kun with two gates, one called the Kharadhar (a salt-water gate) facing the sea and the other called Mithadhar (a sweet-water gate) facing the Lyari river. They then started developing both the harbour and the town. As has been remarked before, Karachi is one of the very few natural harbours on our coast, as the land generally rises above the sea level and above the continental shelf and almost all the rivers form their deltas, so that even the river mouths get quickly silted up. Only a solid protection and a safe anchorage were needed. Such was not the case with Karachi, when Sind was annexed by the British. The development of the harbour was undertaken by the Sind Government. Sir Charles Napier, the first Governor of Sind, took a personal interest in the Capital town and in 1847 when he left Karachi, a granite monument was raised in his memory near the Napier Mole, which was the first attempt in the improvement of the harbour. This monument is the most important historical relic in Karachi.

At first the port afforded anchorage for native jetties only. No vessel, drawing more than 10 to 12 feet of water, could enter the harbour safely. There were no wharfs for passengers or for goods. The following improvements were then made gradually: The Keamari Groyne, the East Pier, the Chinna Creek Bridge, the Manora Break-waters, the Ship Piers such as Merewether,

the West Wharf, the Light Houses, the Oil Pier, the Dry Docks, until in 1917 the Karachi Harbour boasted of not less than 17 wharf berths and 2 moorings for outgoing vessels drawing nearly 27 feet at the lowest tide. Side by side with these, the harbour afforded a naval base and a sea-plane base. The Lido was rapidly converted into a port of flying boats for the Imperial Airways.

The advent of the British gave a tremendous stimulus to the trade of Karachi and the extension of the city was contemplated by them with the construction of the Civil Lines, the Municipal limits and the Cantonment areas. The prosperity of the trade was so great that it is said with pride that some adventurous men, who set foot upon the soil of Karachi with only a few coins in their pockets, left rich legacies behind.

A HUNDRED YEARS WITH BOMBAY

For nearly 100 years Karachi and Sind were connected with the Bombay Government, the Bombay Army on their way to the Punjab and Afghanistan having conquered it at first. As such both the city and the province were naturally neglected and remained backward. There was little progress in the province due to the seat of the Government being far away and the Commissioner-in-Sind, who actually ruled, having very limited powers. The cry for separation from Bombay was raised by the people from time to time until 1936, when Sind became a self-governing province.

The most valuable gift of the British to Sind, apart from the city of Karachi, is the Lloyd Barrage at Sukkur, which was opened in 1932. It is the largest irrigation system in Pakistan and has rejuvenated the land. Inundation canals have been turned into perennial canals. New roads and railway lines have been constructed. There have been bumper crops, ever since, of wheat and cotton in the cold (Rabi) season and of rice in the hot (Kharif) season, with the result that the Barrage debts of over 25 crores of rupees have been repaid by the Sind Government.

and even at present Sind is definitely a food surplus province. With the construction of two more barrages—the Lower and the Upper Sind Barrages—and the further extension of the canal systems and lines of communication, Sind is bound to rise still higher and grow more prosperous. All this means the simultaneous rise of the Karachi harbour and the tremendous growth of the city proper.

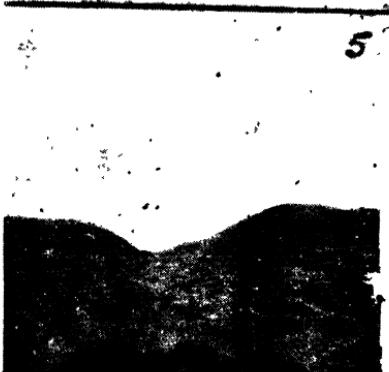
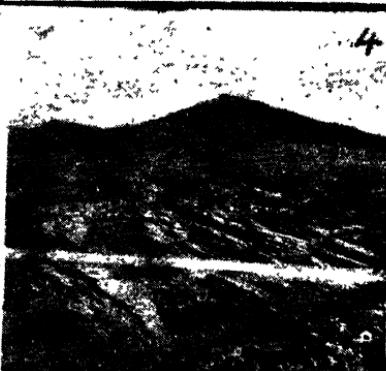
The expansion of Karachi during recent years has been haphazard. "It is a most irregularly shaped city, continuously undergoing changes", according to the Census Report of 1931, "having no fixed wards, a mushroom city ever expanding over a tract of sand, its edges submerged for extensive distances to different depths at different states of the tide". Now with the establishment of Karachi as the capital of Pakistan it has been considered desirable to expand the city systematically. Only an up-to-date system of town planning can make it a healthier, more habitable and to a certain extent even a great industrialised city. Every square yard of ground has to be surveyed, if it is desired to build, beside the present city, an imperial capital worthy of the newly-created dominion of Pakistan.

CHAPTER IV

THE ENVIRONMENT OF KARACHI

PHYSICAL FEATURES AND GEOLOGY

Low flat-topped hills and parallel or sub-parallel ridges devoid of vegetation, vast intervening grounds and dry river beds and other water channels are characteristic of Karachi's physical environment. Once belonging to the Tethys Sea, this land has risen from the great depths with the rising of the Himalayas, the last ripples of the surging land having been marked in the Mangho Pir hills, the Clifton, Manora, Ghizri hills and the Drigh Road dome. Very low dips and gentle domes of the Tertiary rocks are an indication of petroliferous beds. The heights within the city limits ordinarily do not exceed 100 feet and gradually fall to 5 feet at Keamari. The rocks being soft and the climate being dry for the greater part of the year, there is the tremendous subaerial denudation of rocks and the simultaneous erosion of the coastline due to the stormy sea. Surface springs are generally found within denuded anticlines. Very few minerals of economic value can be secured in such a region, but lovers of geology will find their visits to the outcrops of these rocks amply repaid by the excellent sections containing Tertiary and post-Tertiary fossils e.g. in the hills of Clifton, Pleistocene and Pliocene (Manchar) fossils, in the Ghizri and Drigh Road Dome, Miocene (Gaj) fossils and in the Mangho Pir hills, Oligocene (Nari) fossils. Among the rock formations can be found the aeolian crescent-shaped sand-hills, littoral and deltaic shell banks, the post-Tertiary conglomerate, the Siwalik sandstone, the Miocene marine limestone affording good building stone and road metal and the inter-bedded clays of different kinds. Among the associated minerals are calcite found in the joint-planes of limestone, gypsum overlying the Gaj formations, pockets of lignite and some iron-stone in the Nari beds. Chances of manufacturing cement, bricks, tiles and alkali salts in Karachi are great.



1. Weathered Gaj Limestone
3. Mangho Pir Hot Springs
5. Dry River Valley Mangho Pir Area

2. Subaerial Denudation of Karachi Rocks
4. Road to Mangho Pir
6. Orange River's Perennial Flow

The rise of levels everywhere is found, the sea having been gradually driven back, though at one time it made inroads and several islands were formed *viz.* Manora, Keamari, Bath Island, Clifton, Ghizri and Oyster rocks, most of which are now connected with the main land. For this reason, the gently sloping Clifton beach affords some excellent paddling and bathing, while the high and eroded sides of the Bath Island are actually dangerous for swimming. The most interesting geological section is found at Mangho Pir, now only a hill 582 feet high but once an anticline with its dome not less than 3000 feet high. It is now tremendously denuded by subaerial agencies and the Orangi, a tributary of the Lyari, still flows through it. Due to a fault there are hot springs found at Mangho Pir, with the maximum temperature marked to be 126°F. But though Sind and Karachi are within the danger zone due to the unstable folded rocks in the Kirthar mountains, there is no real vulcanism found in the neighbourhood.

The soils are calcareous and heavy and to some extent also saline.

HEIGHTS OF LANDMARKS

Owing to the inherent barrenness of the region, the scenery is tame and yet fine when seen under a clear sky, with its low hills and wide valleys, vastly eroded islets, a long sea-beach, dry river-channels, and brown and grey rock exposures. Some of the heights above the sea-level are given below :

<i>Landmark</i>		<i>Height above sea-level</i>
Oyster Rock	...	96
Manora	...	100
The Beacon	...	49
Lighthouse	...	167
High Pyramid Rock	...	80
Keamari	...	5
Old Town	...	10
Saddar	..	25

<i>Landmark</i>		<i>Height above sea-level</i>
Exhibition Hill	...	60
Clifton	....	97
Mutrani Hill	....	248
Hand's Hill	...	223
Mangho Pir	....	582

NATURAL DRAINAGE

Karachi is far removed from the Indus ; even its silt is drifted away from it towards the east by the wind and ocean currents. Except the Hab there are no perennial rivers in the neighbourhood and even the Hab forms a series of shallow pools for most of the year. The Lyari, with its tributaries, the Orangi and the Gujro, flows past the most thickly populated parts of the city. It is a menace to the Old Town and ultimately falls into the Keamari area. The Malir, draining the Mol plateau in Kohistan, has the Mol and the Khadeji as its chief tributaries, supporting several villages. After their confluence, the river assumes the single name of Malir, which ultimately falls into the Ghizri Creek towards the east of Karachi. Rainfall being very scanty, these rivers are dry for the greater part of the year. They flow hardly for a couple of days during the season but they are a powerful underground source of fresh-water supply for the city. A branch of the Lyari at one time actually flowed through the crowded area of Old Town, the only relics now left being the Embankment Road and the Dhobi Ghat.

CLIMATE

The climate of Karachi is, on the whole, very pleasant and bracing and is the most striking feature of Karachi's natural environment. The temperatures are moderate, but the relative humidity is in excess in some months, so that the sensible temperature is actually high,—the warm air feels warmer and the cold air feels colder than it actually is. Otherwise the sea breeze for the greater

part of the year is a great boon and acts like a natural fan to the inhabitants. The people have devised, in Sind, what are called wind-sails, many of which can be found in the Old Town. Naturally in a place like this, the dust-nuisance is inevitable.

The mean monthly temperature at Manora varies from 56°F. minimum in January to 90°F. maximum in June, while at Drigh Road, only 6 miles inland, we notice the minimum temperature to be 50°F. in January and the maximum of 95°F. in June. The range of temperature also differs in the two areas, 1°F. in July to 18°F. in December at the former place and 9°F. in July to 28°F. in December at the latter. Relative humidity varies from 58% in December, which is the driest month to 84% in August, which is the moistest month. The land and sea breezes alternate during the twenty four hours. The winds blow almost in all directions throughout the year but the prevailing one is the south-west and west for nearly half the year including the monsoon season. The wind direction during winter changes to east and north-east, maintaining an ideal temperature of about 70°F. with January as the healthiest month in the year. The rainfall averages 9.5 inches at Manora and gradually reduces to 8 inches (average) at Drigh Road and 7 inches (average) further inland. This is really very meagre and also variable. There are years of great scarcity at times with only $\frac{1}{2}$ inch rain. The actual monsoon period is from the 9th of July (commencement) to 23rd of July (withdrawal). But the most striking feature of Karachi's climate is the cold and heat waves, as Karachi shares some of the eastern depressions coming from the Bay of Bengal and the western depressions from the Persian Gulf area. When the weather becomes alternately cold and hot, it is a stimulus to human life and activity. But the transition period between summer and winter or between spring and the monsoon season is treacherous and sickness is generally caused, especially throat and lungs infection. On the whole, Karachi enjoys an ideal climate especially during the winter season.

THE BIOLOGICAL ENVIRONMENT

The location of Karachi being intermediate between tropical India and temperate Iran, both the plant and animal life is affected. Coastal types of algæ, sea weeds and rose tangles grow in the littoral grounds. Fresh-water vegetation is found in the river valleys and a few date-palms grow near some springs, though not so well as in the interior due to the influence of the sea. Garden trees and fruit trees also thrive in the green belts of Karachi. Dry-hill vegetation is noticeable in the form of algæs, cactus, castor plant and certain rich medicinal plants. Even African trees grow well. The best part of Karachi in this respect is the Garden Quarter, in which numerous species can be found, the soil being derived from the old Lyari alluvium and the fresh water being near the surface. One remarkable feature of the Karachi gardens is that transplantation of some rich trees and creepers from foreign countries is possible.

Among the animal life, the donkey and the camel are naturally the most prominent beasts of burden. There are a number of poisonous snakes, lizards, jackals and hedge-hogs. Even crocodiles live in the fresh-water pools of Mangho Pir. Bird and insect life is typical of the semi-desert and white ants are a menace to the house-wife and the book lover. There are excellent fishing grounds near the Karachi coast, the chief favourable circumstances being the shallow continental shelf, clear sun-light and mingling of salt water and fresh water in the delta. River silts and sea weeds supply rich plankton and there are favourable seasonal ocean currents too. Shoals of edible fish are harboured not very far from the coast. There is a good trade here of salmons, pomfrets, Bombay ducks, sardines, etc. Prawns are a speciality of Karachi and are worth canning and exporting. Thousands of fishermen find their living here. In these days of scarcity of protein food, the Karachi fish are a blessing to the people.

Lovers of hunting will find in the neighbouring hills some games like foxes, wild dogs, deer and even panthers

AN INTRODUCTION TO KARACHI

ANIMAL LIFE



1. Crocodile Pool, Mangho Pir

2. Donkey Cart

in the far-off Kirthar range, small games in water tanks and diving birds in the harbour areas along the coast. Near Gadap, a village about 25 miles to the east of Mangho Pir, the sandgrouse, hill goat, partridge and rabbit are found. Crocodiles are common in the pools of the Hab river, in which there are large fish like Mahseer, weighing 20 to 30 pounds. In the Moach plain, north-east of Mauripur, there lives the Indian Bustare (Taloor), a species of wild turkey, while at Malir, Landhi and Dabeji the sandgrouse and partridge thrive. Ducks can be gathered at Korangi creek. Fowls in sweet-water pools are of the mallard, pintail and pochard varieties, which are quite edible, but those found in salt-water lakes (Dhands) are unpalatable and taste like fish.

The Karachi cattle are exceptionally good, a hardy and enduring type of milch cattle, which are exported to far-off places like Manila. Buffaloes are not very common and milk supplied to Karachi is generally cow's milk, which is tolerably good.

* * *

Amidst such an environment, the people, who come to settle down in the City from far and near, find life congenial and worth living on the whole.

Again, students of geology, geography, geophysics, natural science and history all will consider Karachi to be a University in itself, affording scope for practical field work at every step. Although borings for petroleum deposits have so far not been successful, e.g., the Drigh Road dome boring carried to about 1,800 feet, suitable structures do exist within the Karachi environs.

CHAPTER V

WATER-WORKS AND DRAINAGE SYSTEM

Karachi boasts of a system of water supply rarely to be found in other parts of the world. It is a multiple system of water-works and is worth exploring,— a delicate net-work of wells, galleries, artificial lakes and canals, under-surface barriers, canal-cum-lake supply, etc., demanding the best engineering skill available.

In the early days of the city, private wells were dug in the alluvium of the Lyari river. As the depth of the well was shallow, the supply was naturally scanty and the quality not quite satisfactory. It was difficult to get potable water in an area covered over with marine limestone and shallow layers of soil and sub-soil. The early settlers also constructed some open water tanks, collecting whatever rain water was available. Such reliés of what are known as Talaos can be seen within the city limits even today *e.g.*, Ratan Talao, Rambaugh Talao, Nanakwara Talao etc. The temperatures in the summer months would not allow them to remain intact, as there was excessive evaporation and some more reliable supply had to be discovered. The only source of getting good and sufficient water is in the dry beds of the rivers and water channels round about the city.

THE DUMLOTTE SYSTEM

Luckily for Karachi one such source was found in the Malir river bed, towards the east of the city limits, by Capt. de Lisle in 1856. Dumlotte, some 18 miles north-east of Karachi, is Karachi's best source of water supply and it was the mainstay of the city for nearly 60 years. Actual wells at Dumlotte were not constructed, however, until 1884. Here an under-ground river is flowing in the gravels and sands of the Malir bed, from which water could be pumped up and gravitated miles away to the reservoir, *e.g.*, Sydenham Reservoir, on the outskirts of the

city. One by one, ten wells have been constructed but unfortunately only on the right bank and one above another on the up-stream side, so that there has been much interference and, due to very scanty and unstable rainfall, the levels have gone down frequently. To augment the supply, municipal engineers have also constructed, what are known as collection galleries, in connection with the wells and under the river bed. The 10th well is situated at the 27th mile ; the 6th and the 7th wells are the largest and the best. They are almost 80 feet deep, and yield over 3 million gallons of water per day. Pumping has to be resorted to and once the water is brought up to the surface, it flows by gravity to the reservoir. Lately, as the population increased rapidly and there was a continuous cry for more water, another engineering device had to be resorted to, *viz*, a dry stone-gallery 3 feet by $4\frac{1}{2}$ feet at a depth of 30 feet below the river bed. It was extended gradually to some 5,690 feet along the river bed. The water from here gravitates into a concrete pipe joining the conduit further down.

The catchment area of the Malir and its two tributaries the Mol and the Khadeji, is nearly 500 square miles, The whole valley has one of the most wonderful under-ground reservoirs in a dry region. In spite of the vagaries of the rainfall, it is surprising to find here a perennial flow actually visible on the surface at some places and also a water-fall of about 20 feet in the upper reaches of the Khadeji one of the tributaries of the Malir river. The whole region is formed of Upper Tertiary limestone, sandstone, clay and post-Tertiary gravel and loose sand. Upon the bed-rock there is a continuous layer of murram and sand to a depth of 100 feet or so. Into this porous alluvium an inexhaustible flow of fresh water is locked up; but gradually with the progress of the season, millions of gallons of fresh water are wasted into the sea. On an average, the total amount of water available in the whole basin is over 51,000 million gallons. Taking the average rainfall to be 7 inches and making allowances for surface run-off and evaporation, at least 33,000 million gallons of good water can be

found in the basin both in the superficial sands and gravels and in the subteranean rocks. But so far the engineers have not drawn more than a fraction of it. The chief difficulty being the lowering of the water-table during the off-season, an extraodinarily clever experiment in water supply was made by the Municipal Engineers very recently. It was to construct an under-surface barrier or diaphragm in the Dumlotte gauge by a process of cementation. The sands were thus solidified and inter-spaces and cavities were filled up, so that the water could be checked and headed up and the water-table on the upstream side raised with the result that it could flow into the existing galleries and the conduit line automatically for a longer period of time after the rains had gone. This was done in 1939. Side by side with this a cross-gallery of about 5,000 feet was constructed near well No. 1 and the water-table lifted up. Though it is most dangerous to disturb such delicate underground currents of water in the layers of the shifting sands below, to a certain extent these operations have proved successful and Karachi could get as much as 10 million gallons per day at the total cost of one crore of rupees from the Dumlotte System. But the engineers so far have not actually been able to secure more than 7 million gallons, allowing the rest to run to waste. At times when the drought is acute, there is a great scarcity of water supply for Karachi.

ARTESIAN CONDITIONS

An experiment for a deep artesian boring was also made by the Municipal Corporation at the instance of the present writer in the year 1940 at the junction of the Bazar and the Malir rivers and it was carried to a depth of nearly 800 feet. The supply, though scanty, was good and the flow was about 15 feet *above* the ground level, thus proving the existence of artesian conditions. But the boring instrument was unable to cope with the fine sand at that level and to go deeper and so the well was unfortunately abandoned and filled up by the Corporation at short notice.

THE INDUS SCHEME

Yet another source had to be found. In the neighbourhood of Karachi a number of inundation canals and shallow salt-water lakes, called Dhands, are available. For a fresh supply of water the Kalri Canal, taking off from the Indus near Tatta, was found suitable and the Haleji lake, 9 square miles and holding 13,000 million gallons of water, was remodelled for the new water-works, the Kalri discharging into it for only a short time during the year. From here the water gravitates through a masonry conduit for 13½ miles up to the Gharo village. Then it is pumped up to a ridge about 150 feet high and 3 miles away. There are gravity filter works here and the filtered water is allowed to gravitate for another 33½ miles up to the Drigh Road hill, about 6 miles distant from Karachi. Water is again pumped up about 150 feet to the hill near Kali Mandir. The supply from this source, though not so good as Dumlotte, is nearly 8 million gallons.

The greatest trouble about the water-supply in the city is that, due to its very low pressure, water does not rise even up to the first storey. At Kali Mandir near Drigh Road, therefore, a large reservoir of high pressure service is under construction, so that the level may rise to about 50 feet and water may reach up to a couple of storeys in future.

This Haleji scheme has its defects. It is dependent upon a seasonal canal, which does not flow throughout the year. The water remains stagnant in the lake for many months. There is a good deal of decaying matter lying in it all the time. There is also seepage through Kalar soil and, besides, the double pumping is most expensive. The health of the city has been impaired to some extent on account of this supply.

Water from both the above sources is always purified by a process of chlorination at the Reservoir. But to be on the safe side, our drinking water has also to be boiled.

FURTHER DEVELOPMENT NEEDED

The supplies have to be given not only to the city population but also to the railway, the military, the Port Trust and the industrial concerns. 7 million gallons from Dumlotte and 8 million gallons from the Haleji lake, are, therefore, quite insufficient for all of them, and if the population, due to the influx of the refugees, has risen to about 10 lakhs, at least 25 million gallons per day, providing at least 20 to 25 gallons per head per day, are required by them. A third scheme, called the Hilaya Scheme, is now being pushed by the Karachi Joint Water Board for additional 10 million gallons by carrying out certain delicate head-works on the Indus river. Karachi now being the capital of Pakistan, there is a cry also of industrialising the city. It has been contemplated, therefore, to augment the new supply from the Hilaya water-works to another 10 million gallons, so that a total quantity of 35 million gallons per day can be provided. This Hilaya Scheme is only a temporary measure and will be replaced by a perennial canal from the new Lower Sind Barrage, near the Gujo village about 52 miles from Karachi on the Karachi-Kotri road. It is expected to be ready by 1954, when the temporary Hilaya Scheme will be discontinued.

THE SHONE SYSTEM OF DRAINAGE

The drainage system of Karachi is equally interesting and intricate. Owing to the low levels of the city itself, the dumping of the sewage into the sea or even a purely gravitation system for a sewage farm has not been possible. The sullage water is allowed to drain from an extensive area into some wells in different parts of the city, from where it is ejected with a pressure head to the pumping station. From here again, it is pumped up a second time to the sewage farm, 13 miles away. This is the Shone System, introduced many years ago by James Strachan. But since Karachi is kept always under an unusual pressure of population, the mains are found insufficient and unsuitable, and

being also old and corroded here and there, they burst very frequently, causing a good deal of nuisance and insanitation in an otherwise healthy city. Even if the number of the zones, in which the ejectors are installed, are reduced, as has been contemplated, there will not be very great improvement in this Shone System without duplicating the lines and the plants. Such a situation in the newly created seat of Pakistan's Government is dangerous.

The sewage farms are worth visiting. One of them is situated on the north side of the Lyari and on the way to Mangho Pir. Here the sullage water is dumped into the soil and good vegetables are grown, giving in return a good income to the City authorities. The other sewage farm is near the Parsee Towers of Silence in the north-east corner of the city. Thus Karachi affords a good example of the eternal cycle of man-to-soil and soil-to-man again.

CHAPTER VI

THE PEOPLES OF KARACHI AND THEIR QUARTERS

Though the Karachi coast is not so inviting, due to the growing Indus delta, there have been frequent inroads of peoples from the sea as well as the interior. Karachi has attracted thousands of peoples of different castes and creeds at different times. From the west, the Arab and Iranian trade routes, from the north the navigable Indus river, from the east the numerous camel paths and from the south the harbour have helped immigration throughout the century and there have been but few chances of emigration because of the flourishing condition of the harbour. Most of the settlers have stayed long, if not for good. Though it is a transit city, no doubt, the profits have been so great that the people have found it necessary to stay on more or less permanently.

CONTRIBUTIONS OF THE COMMUNITIES : THE HINDUS

The Hindus were the original inhabitants and maintained a stable majority for long. The city's trade was mostly in their hands. They came from some parts of the Punjab, from the desert parts of Rajputana and also from Cutch, Kathiawar and Gujarat as traders, merchants and shopkeepers. Most of them were conservative, caste-ridden and would not inter-marry. These Hindus had their castes of different kinds, - the Brahmans or the priestly class but here mostly engaged in trade ; the Kshatriyas engaged in the fighting forces, represented by the Mahratha soldiers and the policemen ; the Vaishyas, or the Lohanas, sub-divided into the Amils, as officers, pleaders, etc., and the Diwans or Government servants, and the non-Amils, as merchants and agriculturists. The Bhai Bandh community, of merchants, again, have been well-known as dealers in cotton and grain. The Jats, or the old Seythians, have lived only as breeders of camel and cattle. With the extension of the city limits the more well-to-do

migrated from the congested areas to specially built colonies in the north. The majority of the Hindu families have left Karachi after the disturbances of January 1948.

THE PARSEES

Among the minority communities, there are the Parsees, the followers of the Iranian Prophet Zoroaster. They came to Karachi as businessmen and traders with the British army in the commissariat department. They have had a brilliant history in India and are known for business acumen, honesty of purpose and cosmopolitan charities. This lucky city soon made them prosperous, particularly as Dubashes in the business of loading and unloading the numerous ships that came to the shore. A very large part of Karachi has been built by them in the Saddar Bazar and Civil Lines areas. By dint of hard labour and by progressive methods they have maintained a high standard of living and kept up the prestige of their fore fathers of Iran and of Bombay. Some of the industries in Karachi were also established by the older generation, who again laid the foundation of their own colonies and public institutions, poor-man's Chawls, industrial schools and hospitals. The Parsees have thus to a great extent relieved the Government of the burden of life in the city. But the present generation needs a revolution in its socio-economic structure, in order that they may play a similar part in the future progress of Pakistan.

The Parsee Panchayatwadi in the Ranchore Quarters for the poor class and the Katrak Parsee Colony for the middle class, are the main Parsee localities, although there are many families still living in crowded Saddar Bazar and Civil Lines Quarters in scattered flats and bungalows. Their total strength in Karachi hardly exceeds 4,000. After the Partition it appears that many Parsees have migrated to Karachi from Bombay and other centres in search of business or service, but they have to face the housing problem, along with other immigrants.

THE CHRISTIANS

The Christians, nearly 20,000 in number, also have been helpful with their share in the public services and peaceful pursuits. The religious zeal of the Catholic community is well-known. The Goans mostly Roman Catholics, are known for their ability and enterprise in Karachi. Like the Parsees they have also their own religious and secular institutions established by them in the city. Inter-marriages of Europeans with the Indians on the west-coast of India have resulted in a certain number of Anglo-Indians living in the city. They have now made Pakistan their permanent home, yet maintaining frequent contacts with their homelands because of the quick and comfortable transports available in recent years. There are some permanent domiciled Europeans, specially trained men and women with a standard of life much higher than that of the natives and giving a certain amount of dignity to the city. Britishers are still in some of the Pakistan services. There are business firms and industries maintained by other Europeans. Their enterprise benefits not only themselves but also the other inhabitants of the city. They have their own Chamber of Commerce, their schools and churches and are, on the whole, prosperous. The establishment of several foreign embassies in Karachi have added to the number of the Christians. The native Christians mostly live in Saddar Bazar around the Catholic Church. A Garden Colony, called the Cincinnatus Town, has been established for the middle class, while the Europeans and other foreigners generally live in Frere Town, Bath Island and Clifton.

OTHER MINORITY COMMUNITIES

Other minority communities are the Jews, the Jains and the Sikhs, most of whom have migrated to India after the Partition.

THE MUSLIMS

The Muslims, up to August 1947, found themselves actually in a minority in the city, so great was the influx

of Hindus from every side. In a province with a decidedly large Muslim majority, it was indeed an anomaly. But after the exodus of the Hindus last year, they have attained a most powerful majority. Formerly the Hindus were found in the heart of the city and the Muslims on the outskirts but now the position is actually reversed. Once a greatly backward class of people they are now coming to the fore-front of Karachi's population and its future is largely in their hands. They are gradually getting more and more educated. Due to the historical incidences and the political changes in the past, the Muslim settlers in the Karachi area were from Iran, Afghanistan, Baluchistan, Makran, Arabia and Africa. Many natives embraced Islam at the time of the Arab conquest of Sind and there have been Hindu converts to Islam also from Cutch, Kathiawar and Gujarat, still speaking the Gujarati language. There are the Khwajas, the Lohanas, the Borahs and the Memons, all doing well in their own special lines and trades. Many more are engaged in industries, such as fishery, gardening, cattle and camel breeding, etc. Several wealthy Muslims have purchased properties left by the Hindus in Saddar Bazar, Civil Lines, Bundar Road Extension and are building new colonies of their own. This is the upper class of refugees, who have resettled themselves in a short time in the Karachi area.

THE REFUGEES

The Muslim refugees from India have transfused new blood into the heart of the city. There have been two prominent streams, one from the sea-side, Bombay, Gujarat, Cutch, Kathiawar and even from far-off Hyderabad, and the other from East Punjab, Delhi U. P., Bihar, etc., from beyond the Indo-Pakistan borderland, driven here in desperation and unsettled in their minds and their homes. At least 500,000 out of 1,000,000 refugees must have been in Karachi at present. Many are found in divided families, their relatives still living in India. Society seems to be in a state of flux here to-day. Many originally belonged to the rural population but are now forced to live their life in

a city like this. Non-Sindhis are rapidly becoming Sindhis, with Karachi as the starting point. They are helpful in reconstructing Sind's economy, which was unfortunately upset by the Hindu exodus. Business men from various parts of India have already ably replaced the Hindus, but the problem of the Muhamjireens is acute in the city. Most of them are found homeless. Even women are found cooking in temporary huts on the road-side. Children lie in dust and squalor and the old people are sick and helpless. With their miserable wherewithals they lie in patchwork tents on the foot-paths and in road-side huts, but they are very skilful in small handicrafts, which are frequently exhibited in their tiny improvised shops. It is expected that some of the Sind trades and small industries will soon go into their hands. What they badly need is multi-purpose Co-operative Credit Societies. There are at present a number of temporary refugee camp established in Karachi, e.g., Golimar, Jacob Lines, Martin Road and Haji Camp centres. Thousands of them have been given shelter here for the time being, and in the barracks, hutments, etc., in the old Military area, until they could be shifted to better homes. Side by side with this, a programme of building new colonies, e.g., Bihar Colony and Pir Illahi Baksh Colonies for the better class of people is carried on ; housing societies have been formed and serious rehabilitation is commenced. There is over-crowding everywhere. It is not likely that all the surplus population can be absorbed by the city, which has already reached its saturation point. Urdu, the *lingua franca* of W. Pakistan, is gradually replacing Sindhi and the Islamic ways of living are getting a footing everywhere in the city. From this great conflict of cultures belonging to the different communities, a new civilization is likely to emerge in Karachi. For long years Karachi has been a miniature Sind; now with its new position as the Capital of Pakistan, its character is changing and a New Delhi is in sight.

That these refugees are going to be an asset of Pakistan can never be denied. Such immigrants in other countries of the world have caused a rejuvenation of

industries and a rebirth of learning besides, e.g., U.S.A., Latin America, Turkey, Palestine and Iran.

PROCESS OF REHABILITATION

It has been estimated that over 70 lakhs of refugees from across the Indo-Pakistan borders have entered Pakistan since the Partition, many of them being from East Punjab and some Native States, while the vacuum caused by the Hindu exodus was to the extent of 50 lakhs only. A census has not yet been taken as to how many of these are still resting in Karachi, but from the total population now having increased to 10 lakhs, it can be surmised that at least half of this present population of the city is due to the new comers. This includes a certain proportion of a floating population that has not yet been rehabilitated. Many are housed in temporary camps and shelters, the tendency in the beginning being to have concentration camps within the city limits, like those of Karachi and Hyderabad. Even free meals are served to the most destitute of them. It must take some time to rehabilitate them so as to create an assimilation of a large number into the existing economy of the cities. But there is good scope for the Government to develop some of the most fertile river valleys, in different parts of Pakistan, that have been neglected so far. The foundation of the new State of Pakistan can only be well and truly laid on the *soil of Pakistan*, which helps to make it "the granary of the East", at the present moment when the whole world is crying for food and more food. That is our greatest hope to see the starving world fall at our feet.

The plight of the refugees within the Karachi area is really pitiable, in view of the fact that even at present more and more are pouring into the city. The greatest trouble is the water supply. Men who used to ply the trade of water carrying in India try to supply water from water taps in the streets to the camps and hutments under great difficulties. Food, however, is not so scarce, although the prices have soared high, and the shelters are unsuitable and trying during inclement weather conditions.

In many respects then, this refugee class should be called 'sufferers' and not refugees. A very elaborate programme of building new houses and new colonies is badly needed.

PUBLIC HEALTH

Health statistics of Karachi so far have been favourable but for the congestion of population, insanitation and high prices prevailing at present. Karachi, for long one of the healthiest stations in India and Pakistan but for the rush of the refugees, needs a Cleaner Karachi Campaign seriously. The problems of water and drainage have been already referred to. Dust nuisance is usual and dust-borne diseases are common. People suffering from asthma cannot live well in Karachi for this reason. There are skin and stomach troubles, too, due to the infection in the water-supply. Infantile mortality is always high. Excess of humidity causes rheumatism and the glare causes weaknesses of the eye. Almost every year with the advance of winter and the temperature variations, small-pox breaks out. Typhoid, which was already in an epidemic form some time ago, has now become an endemic feature and anti-typhoid injections are necessary. There is a certain amount of enervation caused by the climate itself. Air-conditioning has not yet been introduced ; but, on the whole, the climate of Karachi has been more an attraction to the visitors than a set-back.

ADMINISTRATION OF KARACHI.

The administration of the metropolitan area is now in the hands of the Pakistan Government, the first Administrator of Karachi, Mr. S. Hashim Raza, being in charge. The old Municipal Corporation has been suspended. For administrative purposes the Karachi city has been divided into 8 Wards, which are again sub-divided into Quarters as under :—

1. Old Town ... Napier quarter and portion of Lea quarter.

2. Bundar .. Market and Old Jail quarters.
3. Runchore and Ramaswami quarters.
4. Serai .. Ram Baugh and Artillery Maidan quarters.
5. Machi Miani Lyari, trans-Lyari, Mauripur, Moach quarries quarters and portion of Lea quarters.
6. Tahilram .. Lawrence, Garden East, Garden West, Jamshed, Soldier Bazar, Souter Police Lines, Preedy, Har-chandrai quarters and portion of Saddar Bazar.
7. Railway .. Queens Road, Civil Lines, Frere Town, Bath Island, Clifton, Ghizri Quarries, Sewage Farm, Parsee Tower of Silence quarters and portion of Saddar Bazar.
8. Keamari .. Baba, Bhit, Shamspir and Bandar Island quarters.

With the recent changes in the population, it is likely that these Wards and Quarters will be re-modelled into a scheme of zonal planning of the city.

WARDS AND ROAD CONNECTIONS.

The important roads, corresponding to the present Wards and Quarters, are as follows :—

<i>Ward.</i>	<i>Road Connections.</i>
1.	Bandar Road, Napier Road, Newnham Road' Daryalal Street, Kundan Street, Princes Street.
2.	Bandar Road, Mission Road, Lawrence Road, Mackurck Road, Hospital Road, Johan Street.
3.	Nabi Bakhsh Road, Barnes Street, Maistan Road, Ramchandra Temple Road.
4.	Rambaugh Road, Burns Road, Outram Road, Frere Road.

*Ward.**Road Connections.*

5. Harris Road, Embankment Road, Pilgrim Road, Faqir Mohd., Dura Khan Road, Denso Road, Kumbbarwara Road, Chakiwara Road, Sauney Road, Barnes Street.
6. Bundar Road Extension, Lawrence Road, Soldier Bazar, Mill Road, Garden Road, Commissariat Road, Love Lane, Mohd. Ali Jinnah Road, Britto Road, Clayton Road, Mignon Road, Dadabhai Naoroji Road, Motilal Nehru Road, Preedy Road, Victoria Road, Elphinstone Road, Somerset Road, Frere Street, Napier Street, Clarke Street, Jutland Road.
7. Queens Road, Kutchery Road, Invararity Road, Strachan Road, Ingle Road, Havelock Road, Brunton Road, Hoshang Road, Bonus Road, Scandal Point Road, McNeil Road, Lilley Road, Adam Road, Jehangir Kothari Road, Clifton Road, Ghizri Road, Bath Island Road.
8. Napier Mole Road, Port Trust Lines.

There are some 50 streets and roads in Karachi covering nearly 200 miles. Both the bus and the tram routes are few and far between.

Place-names are connected with different communities. Many a road or street is still continued to be named after great Hindus, who have contributed to Karachi's prosperity, even after the Partition and their emigration.

COMPOSITION OF THE SECRETARIAT

Now that the administration of the City of Karachi has been vested in the Central Government, the Pakistan Government Secretariat has been established in the old Assembly Building, called the Parliament House, and in the adjoining buildings of the Chief Court of Sind, while a number of other offices of the Government of Pakistan have been accommodated temporarily in nearly 60 huts built round about these buildings.

Altogether ten Ministries form the Government of the whole Dominion, in charge of ten Ministers headed by the Hon. Mr. Liaquat Ali Khan, Prime Minister. Under these, there are a number of departments, such as the Army, Navy and Air Force, the Board of Revenue, the Development Board, the Directorates of Information, Communications, Industries, Education, Law, Food and Agriculture, Railway, Health, Resettlement and Employment, Refugee Rehabilitation, etc.

Everything depends upon the education the Capital city will give to the rising generation of Pakistan. It is the youth that counts everywhere in this young State ; and in the future planning of education the most important Department of Education, now ably presided over by the Honourable Minister Mr. Fazlur Rahman, must play a most vital part. The scientific side of modern educational system, from the lowest to the highest will have to be well attended to, so that a patriotic, brilliant, inventive and noble race may arise and flourish in the end.

The civilised world is gradually gathering at Karachi ; similarly Karachi is going abroad as a Messenger of goodwill and universal brotherhood.

Some diplomatic representatives of the Government of Pakistan have been sent abroad, as Ambassadors, to U.S.A., U.K., India, Burma, Afghanistan, Egypt, Saudi Arabia, Iran and Iraq, Turkey, France, U.S.S.R, Czechoslovakia, Yugoslavia, Italy, Canada, Australia, New Zealand, and South Africa.

At the same time, over 17 countries have established their Embassies in Karachi, such as the representatives of U.K., U.S.A., Australia, Egypt, Iran, Afghanistan, Turkey, Iraq, India, Hyderabad, Indonesia, Belgium, Transjordan, the Argentines, etc. For want of proper accommodation, these embassies have been located in different parts of the city for the time being.

CHAPTER VII

MORAL AND MATERIAL PROGRESS OF THE CITY

Karachi having a very brief history of its own, we do not find any archaeological ruins, pre-historic monuments and places of historical associations. Devoid of vegetation it has no illuminating natural scenery or landscape, no water-falls to admire and no summits to reach. And yet the fact that it is a rapidly rising city, having quite a flourishing harbour and a delightful climate for the greater part of the year, helps us, no doubt, to find some notable and interesting places. It is, indeed, rapidly growing into a city of palaces, domes, Bazars and residential flats. The richness of the market is reflected in the many magnificent public buildings that have lately sprung up in the city. Besides, as it is a city with a cosmopolitan character, there are no extraordinary religious places, temples, mausoleums and monuments belonging to any particular community. Education cannot be said to have very much advanced, on any systematic lines, the University of Sind having been established only in 1947, with hardly half a dozen colleges and technical institutions affiliated to it ; but it has a nucleus of a great university befitting Karachi and the province of Sind. The city so far having a more or less clean and healthy record, there are not many hospitals found. But there are charitable dispensaries owing their origin to munificent gifts from local donors. In spite of vast and extensive grounds, not many institutions for recreational purposes, except a few gymkhana and boat clubs, have been established. In fact, Karachi has yet to build some large stadiums, public halls, auditoriums and parks worthy of the capital of Pakistan. With all these drawbacks, the city has a charm of its own and is well worth exploring.

There is plenty of building material, including the famous Ghizri limestone, in the neighbourhood and so most of the buildings have been built of this local and

attractive building stone. But it is greatly liable to weathering and can be quarried only in small blocks. For this reason, when some of the notable buildings were recently constructed, both the Government and the public had to import the well-known and durable Jodhpur red sandstone. This, in combination with the local limestone, has given to Karachi some very attractive and solid buildings and places of public utility. Cement concrete is manufactured lately on a large scale, as the raw materials are found plentifully in the neighbourhood. Both the style and the colours of the new buildings have changed on this account.

1. MEMORIALS AND MONUMENTS.

Students of history and archaeology will have very few data available for any documentary evidence that they need for their study and research. Only a few of the more important memorials and monuments are listed below, giving a hint here and a hint there as to what Karachi's past has to indicate in this matter.

Napier's Monument. Built in memory of Sir Charles Napier, the first Governor of Sind, this monument was erected in 1847 in the form of an obelisk near the Seamen's Rest, just where the Keamari Island begins after the Native Jetty bridge is crossed. It is made of Aberdeen granite and is placed on a pedestal equally attractive. It was from here that Napier bade good-bye to the city of his life-work and pride. The inscription on it runs as follows :

“ From this spot on the 1st December 1847 was fired the farewell salute to His Excellency Lt. Governor Sir Charles Napier, G.C.B., on his retirement from Governorship of Sind, being the extreme point to which at that date wheel-ed carriages had ever passed along this bundar, a work planned and executed under the Gov-ernment of His Excellency and was first

completed at the date of his departure from this province.

Erected 1853 Rebuilt 1901 ”.

The Victoria and Edward Memorials. They are full-size marble statues erected in the compound of the Frere Hall on the Victoria Road. One was raised in memory of the Queen Empress of India, Victoria the Good, in 1906. This Victoria Memorial is built of white marble in the classic style and is made attractive by the statue of Queen Victoria, holding in her hands the sceptre and the orb. A companion statue of Edward VII was built in 1916 opposite to it on the side of the Staff Lines. Both these memorials are surrounded by beautiful statuettes and lawns, garden benches and paths.

Her Majesty's 22nd Regimental Monument. This simple monument is found in the compound of the Holy Trinity Church and with the following inscription :

“ This monument is erected by His Excellency General Sir C. J. Napier, G.C.B., Commander-in-Chief in India, Colonels and Officers, Non-commissioned Officers and Privates of Her Majesty's 22nd Regiment of Foot, as sacred to the memory of their fellow-soldiers, who died from the effect of climate, during their first tour of service in Scind in 1842 and 1843.
Erected A.D. 1849 ”.

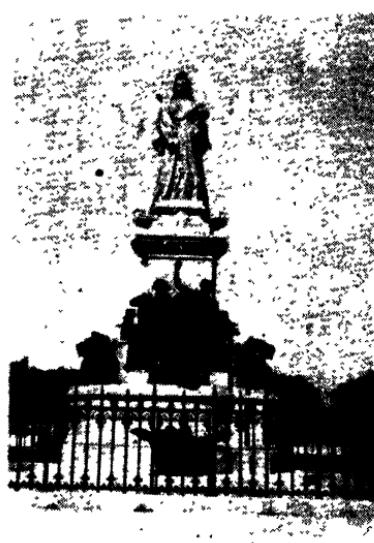
There are four mortars kept in the four corners of this monument. Incidentally this memorial reminds one of the rigours of the climate of Sind in certain months of the year.

50th Rifles Graves. Behind the Convent, there are some memorable graves, which are “Sacred to the Memory of the Non-Commissioned Officers and men of the 1st Battalion 50th Rifles who died of Cholera in June and July 1846 ”.

AN INTRODUCTION TO KARACHI
MEMORIALS AND MONUMENTS.



1. Lakshmi Building
3. Empress Market, Saddar



2. Victoria Memorial
(Frere Hall)
4. Merewether Tower

Among them, is the famous one belonging to a nephew of Sir Charles Napier with the following inscription :

“ Here lies the Body of Captain John Moore Napier of Her Majesty’s 62nd Regiment and Military Secretary to his uncle Sir Charles Napier ”. He with his Sister Sarah Napier and other 685 fellow soldiers fell victims to that dreadful disease just before the rains set in. “ No better man nor braver soldier has fallen in Scinde ”.

The Baluch Memorial Cenatoph. This is the only War Memorial in Karachi, built in memory of the Baluch Infantry Regiment, that had given a worthy share in the First Great War. Seen from the air, it appears like a crescent and a star. It is an impressive monument made of the Jodhpur red sandstone with the names of those, who fell in the War, inscribed on it. It was unveiled in 1922 by H. R. H. the Prince of Wales (the present Duke of Windsor). Once in the year, wreaths are placed here on the Armistice Day and the Day of Remembrance. The following inscription will be found on the Memorial :

“ To the Glory of God and in Memory of our comrades of the Baluch Regiment.....who laid down their lives in the Great War 1914-1918.”

War Trophies. There are four of the First World War trophies to be seen in front of the Flag Staff House (the Quaid-i-Azam’s bungalow), Staff Lines, in the form of 13 inches R. M. L. Jointed Howitzers, each weighing 20 $\frac{1}{2}$ cwt.

War Memorial Tablet. An illuminated tablet is fixed on the outside wall of the Holy Trinity Church, Victoria Road, with the following inscription :

“ To the Glory of God and in honoured memory of the Officers and men of 11th Garrison Battalion—the Bedford Regiment, who in the service of their country during the Great War died at sea on the voyage out and in India, while Battalion was stationed in Karachi 1917-1919.

This tablet is dedicated by their comrades of all ranks in the Battalion, 1919".

The Edulji Dinshaw Statue. To commemorate the memory of the Parsee benefactor Seth Edulji Dinshaw, this statue was erected by the Karachi public at the junction of Victoria Road and Strachan Road in 1933. Made of white marble, the statue represents a typical Parsee gentleman of the last century, both the costume and the head-dress being reminiscent of the old-fashioned Parsee. It is an emblem of honest labour and great benevolence and is a reminder to the rising generation of what the Parsees have done for the city of Karachi.

Inscription on the pedestal :

" Edulji Dinshaw, Esq., C.I.E., a noble and philanthropic citizen of Karachi. Born 18th May, 1842. Died 8th May, 1914. This statue is erected in his memory by people of Karachi".

The Nadirshaw Edulji Statue. A worthy son of a worthy father, the Late Seth Nadirshaw Edulji Dinshaw has been honoured with a separate monument presented by the people of Karachi in 1933. It has been erected beside the Staff Lines, opposite the Flag Staff House.

Inscription on the pedestal :

" Nadirshaw Edulji Dinshaw Esq. A noble and philanthropic citizen of Karachi. Born 9th July, 1862. Died 17th November, 1922. This stone is erected in his memory by people of Karachi.

Unveiling ceremony was performed by Sir Montague Webb, Kt., C.I.E., O.B.E., 4th March, 1933".

The Mahatma Gandhi Statue. At the commencement of the Kingsway, in front of the Chief Court of Sind and facing the Pakistan Parliament, this unique statue stand. as a gift of the Indian Merchants' Association to the citys It is a bronze full-size statue, depicting the architect of

the Indian Union in the attire of an Indian mendicant. The visitor will find the following words inscribed on the pedestal :

“ **Mahatma Gandhi**

Apostle of Freedom, Truth and Non-violence ”.

2. PLACES OF PUBLIC UTILITY AND INTEREST.

Compared to the size of the city, again, the places of public utility and interest are not many. Parsee charity has been responsible for a few, and the flourishing trade of the port for some public and private buildings of note. All of them, however, suggest that the city is still in the making and would soon vie with other cities in the country.

Jehangir Kothari Parade and Lady Lloyd Pier. This is the most prominent land-mark, visible from the sea-side and can be called the best health resort for the people of Karachi. It affords a magnificent view of the Arabian Sea, the Keamari harbour, the Oyster Rocks and the Manora island. This monument is a rare example of Parsee charity, made by Sir Jehangir Kothari, O.B.E., who, having gone round the world nine times, thought of giving the city of Karachi a dignity worthy of the capital of Sind. He gave away for this the site of his own bungalow and garden at Clifton with an additional handsome donation of Re. 300,000. The Kothari Parade was opened in 1920 and the Lady Lloyd Pier, raised in the name of Lady Lloyd, wife of the Governor of Bombay at the time, in 1921. To beautify the site, some of the hill crags nearby have been utilised and the parade consists of a promenade 600' by 30', a kiosk and wide foot-paths, all of cement concrete with stone balustrades, made of Jodhpur sand-stone and Ghizri limestone. There are two terraces built alongside and there is a large carriage stand and parking ground for motor cars etc., in front of the Parade. The temple of Shiva is just below the Parade and there are rock gardens on both sides. The Pier is 1300' long and 15' wide, also made of cement concrete with the balustrades of Ghizri limestone and Jodhpur sandstone,

with two additional terraces in the middle. It ends in a pavilion measuring 70' by 50' towards the beach and made of the same materials and resting on piles.

This Clifton beach is considered to be the largest in Pakistan and is suitable for conversion into a first-class riviera. A road has been constructed, though not without obstacles of sand-hills, between Keamari and Clifton along this beach, which extends several miles also on the other side.

Right round the Clifton hills there are distinct signs of the action of the waves on the rocks, in the form of caves and sea-cliffs, and underground springs, also the accumulation of crescent-shaped (Burkhan) sand-hills and the consequent receding of the sea.

Pakistan Parliament House. Ever since the coming of the Pakistan Government to Karachi, this old Sind Secretariat and Assembly Hall is used by the Government of Pakistan as their temporary office buildings. Beside the King's Way, it is an attractive solid building, made of local limestone and having two floors accommodating the office chambers of the Hon'ble Ministers. This apart, the Government of Pakistan has some 60 temporary hutments erected in its neighbourhood, in what is still known as Artillery Maidan, for the use of the various Departments of the Government of Pakistan with the Old Sind P. W. D. buildings at the end of the Queen's Way, standing in the centre.

Chief Court of Sind. Between the King's Way on one side and the Queen's Way on the other, in the Artillery Maidan, this magnificent red sandstone structure in the Renaissance style stands, reminiscent of New Delhi and Lahore. It is the most imposing building in Karachi, with magnificent cupolas, balconies and tall pillars in the Roman style, built at a cost of over Rs. 30 lakhs. The high and massive plinth and the flight of steps in front of the building reaching the first storey and the characteristic facade give it a great dignity. The two lower floors are occupied by some of the Ministries of the Pakistan Government, while the Chief Court of Sind

AN INTRODUCTION TO KARACHI

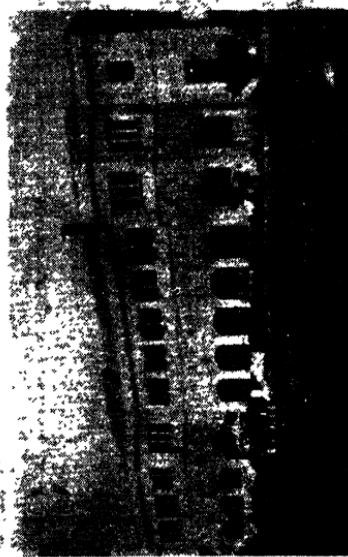
GOVERNMENT BUILDINGS



1. State Bank of Pakistan



2. Chief Court of Sind (Secretariat)



is located on the top storey. The whole structure appears to be a combination of Indian and Roman architecture.

Frere Hall. This can be called the most attractive building in Karachi, built in memory of Sir Walter Frere, Governor of Bombay and opened in 1865. Though smaller in size, it has a charm of its own. Bolari limestone is used for this structure and the style is Venetian Gothic. A porch and a double staircase are on the east side. As the stone got greatly weathered, it has now been plastered over. This Hall has small and colourful arches and graceful pillars. There is a hall on the upper storey, measuring 70' by 25' with an orchestral gallery ; but it is now occupied by the Victoria Museum, which has been shifted here from its own building, now occupied by the State Bank of Pakistan. The Museum contains some relics from Mohenjo Daro and other archaeological sites in Sind. There is an excellent collection of specimens of natural history, national costumes, Sind lacquer works, pottery and some historic relics, such as guns, characteristic of the province of Sind. A day during the week is reserved for ladies.

The ground floor on one side is occupied by the Municipal Library, called the Frere Hall Library. It is a subscription library and contains a large and precious collection of books and records rarely to be met with elsewhere. A part of the Reading Room is free for the public. On the other side of the building, the Pakistan Institute of International Affairs is located.

Empress Market. An attractive building on the Preedy Road in Saddar, with a clock tower in front and a courtyard in the middle. It serves the population in this part of the city well.

Ghulam Hussain Khalikdina Hall. Another example of private charity ; it is the largest public hall in Karachi, measuring 70' by 45' and accommodating 700 people. It was constructed in 1906 on the Bundar Road and is under the control of the Karachi Municipal Corporation.

A fine library, called the Native General Library, is located in the front rooms.

Municipal Corporation Building. Quite in keeping with the traditions of the city this building stands as a splendid monument of what the old Karachi Municipal Corporation has been able to achieve for nearly a century, particularly with regard to the city's water supply. It has cost the Corporation over Rs. 14,00,000. It is on the Bundar Road with the frontage in the form of the letter E and is made of Jodhpur sandstone. It is a mixture of Egyptian, Spanish and Saracenic architecture, with graceful domes and lovely balconies, Moorish horse-shoe shaped arches, attractive galleries and the facade also made of Jodhpur sandstone. It has a hall accommodation of 500 seats, the hall measuring 67' by 37' and a clock tower, 162' high, with delightful chimes.

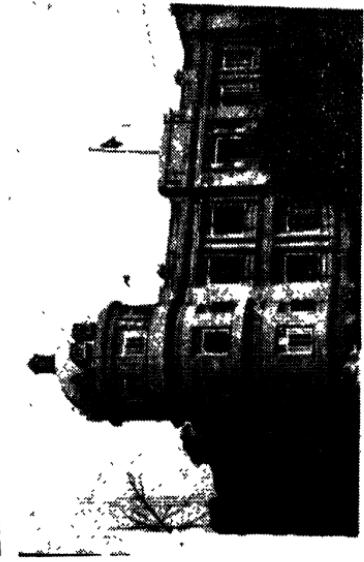
Max Denso Hall. Further along the Bundar Road, it was opened in 1856 and named after the then Chairman of the Karachi Chamber of Commerce. Built in the Venetian-Gothic architecture, it has a hall on the upper storey, measuring 60' by 30' with an accommodation of nearly 500 seats. A public library and a clock tower are among its attractions.

Karachi Chamber of Commerce. Established in 1865, this European institution stands in Wood Street. It is an important commercial centre and is a symbol of expanding business with the rapid growth of the harbour. Import and export trade is continuous and profitable. The building is exceptionally beautiful, built in the classic style of Jodhpur sandstone with columns of the Doric style on both sides of the porch and a flight of steps in front of the portico. There is a beautiful assembly hall with grey marble flooring.

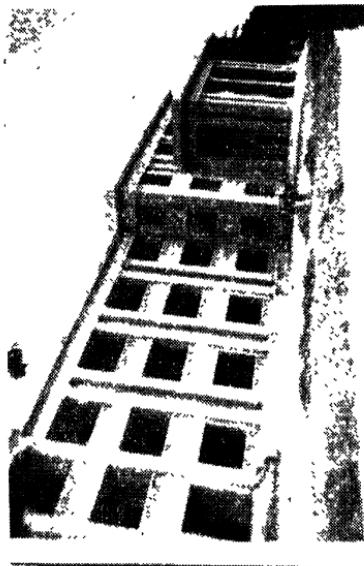
Central Posts and Telegraphs Offices. These are located on the McLeod Road near the Karachi City Station, with a double rectangular block of buildings, besides some quarters for the staff and the main post and telegraph offices.

AN INTRODUCTION TO KARACHI

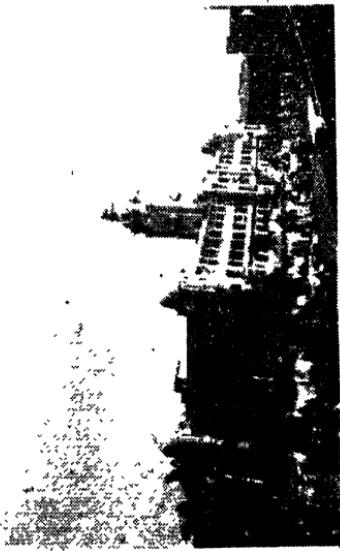
PLACES OF PUBLIC UTILITY



1. Palace Hotel



2. University of Sindh and Pir Illah Bux Training College



Imperial Bank of India. This, one of the finest buildings in Karachi, stands on the McLeod Road. The pink red Jodhpur sandstone is used here also. The frontage is beautified with Doric columns and borders of Belgian black marble. There is a peculiar concave dome-light arrangement with the ceiling made of fibrous plaster. The banking hall is the largest in Karachi, measuring 150' by 50' with a height of 28'.

Hindustan Safe Deposit Company Building. This limited company has its buildings situated on the corner of McLeod Road and Dunolly Road. It has a safe vault and is air-conditioned.

The Cotton Exchange. It is opposite the City Railway Station and is an exceedingly impressive building with the usual dome and column structure. It is buzzing with the activities of cotton merchants of the whole of Pakistan. Originally an Indian concern, it also reflects the prosperity of the cotton trade of Sind.

Indian Merchants' Association Building. At the junction of Frere Street and Nicol Road. It is an impressive building occupying nearly 400 square feet, built at a cost of over Rs. 300,000 and houses the Association of Indian Merchants, dealing especially with cotton and grain.

Laxmi Building. It stands on the Bundar Road, a very tall building seen from long distances and is crowned by a gigantic statue of Laxmi, the goddess of wealth, standing on a lotus flower, made of attractive stone and plaster work.

Customs House. Built in 1920, it houses the old Imperial Customs House, overlooking the massive Import Yard and the Native Jetty. It is a grand pile of three storeys with an attractive cornice and freeze frontage; a very busy commercial centre of Karachi. It is overflowing with harbour activity.

Port Trust Building (Port of Karachi). This is also a jewel of a public building, crescent-shaped and

built in the Renaissance style at a cost of nearly Rs. 1,000,000, almost in continuation of the Customs House. It was occupied as late as 1915. It is situated on the corner of Bundar Road and Edulji Dinshaw Road at a short distance from Merewether Tower. Consisting of three storeys, it accommodates the Port Trust, the Secretariat, the Engineering Branch, the Assessment Department, the Drawing Offices, etc.

Mansfield Import Yard. It covers a vast area of some 60 acres, reclaimed from the sea to the north of Native Jetty. There are goods yards here belonging to the North Western Railway.

McHinch Seamen's Rest. Named after the chairman of the Karachi Chamber of Commerce, it is a blessing to the seamen, who visit Karachi. Its situation is on the Napier Mole Road near Keamari. It was built by the Port Trust in 1920.

Keamari Harbour and Docks. These are a gradual evolution of the Karachi Harbour during the last 75 years. As the original channel between Keamari and Manora Island is shallow, the harbour has been artificially improved to admit a draught of about 30 feet so that large ocean-going steamers can easily enter. Silting, however, is continuous and dredging is constantly done to keep the depth of water normal. East of the channel there are the Oil Pier, Boat Basin and Return Wharfs, Passenger Wharfs, Napier Mole Boat Wharf and Grass Bundar. West of the channel and on the side of the Baba Island there are the Lloyd Quay and West Wharfs. The Manora Breakwaters, 1500' long and 6' wide, are in continuation to the south of the Manora Island. Breakers against this massive wall present an awe-inspiring sight. Similarly the Keamari groyne, 8300', long, is to the south of Keamari. Here is one of the busiest ports in the East, where ships of almost all nationalities are constantly loading and unloading the cargoes.

On the right side of the Passenger Pavilion, the Port Trust village can be seen, while on the left there

are the wharfs and the harbour railway lines built along the Keamari groyne. Arrangements have been made to construct two dry docks, one for the merchant shipping and the other for the Pakistan Navy, at a cost of one crore of rupees.

Radio Pakistan. With the transfer of the Pakistan broadcasting station from Lahore to Karachi, Radio Pakistan has obtained a new lease. Medium and long-wave transmitters have been installed at the Head Quarters located on the Queen's Road, beside the H.M.P.S. Dilawar. The short-wave transmitter has not yet been installed at Landhi, so that Radio Pakistan is not capable of receiving foreign countries for the present. The office of Radio Pakistan is situated on the Bunder Road extension opposite the Nishat Cinema.

Governor General's House. (Formerly the seat of Governor of Sind). It is on the Havelock Road and is a most impressive building in Karachi with a vast compound, beautiful lawns, rock gardens, a swimming bath etc. The original site belonged to Sir Charles Napier. It was purchased from him by the Government of Sind for Rs. 48,000. There are several Government offices in the compound, which has four gates on the four sides.

Sind Governor's House. This old Government House is on the Kutchery Road and is next to the Palace Hotel; now the residence of H.E. the Governor of Sind. It has an exceptionally beautiful garden.

Drinking Water Troughs. In a place like Karachi, where there is some hardship for drinking water for beasts of burden and other animals, the visitor will find some very unusual water troughs, erected by the Society of Prevention of Cruelty to Animals and other charitable donors. One of them can be seen adjacent to W. V. S. Thrift Shop off the Staff Lines, with the following instructive tablet fixed on to it.

“The Lord is my shepherd, I shall not want,
He maketh me to lie down in green pastures ;
He leadeth me beside the still waters ;

He sendeth the springs into the valleys, —

They give drink to every beast of the field, to quench their thirst ;

He healeth the broken in heart and bindeth up their wounds.

In deepest gratitude.

—B. Bernard Löwenthal, Dr. Med. (Berlin)".

Karachi Electric Supply Corporation. This corporation has its power house situated on the Kutchery Road, almost opposite to the Governor-General's House. It produces thermal electric power for the whole city and is now unable to cope up with the demand. Electricity is sold at As. 4 per unit for light consumption and Anna 1 for industrial purposes. The power house is out of place here.

W. V. S. Thrift Shop. This small but useful institution is located outside the compound of the Holy Trinity Church and opposite the Palace Theatre, Staff Lines. It was started during the Second World War by the Women's Voluntary Service Corps and is still continued during peace time, by some self-sacrificing ladies. Articles are presented or bought and sold by the institution, of which the membership fee is Rs. 100 per month, but the service is entirely free and voluntary.

During the war donations of the value of Rs. 35,000 were given in War charities and during peace-time a sum of Rs. 10,900 has been donated last year and another of Rs. 7,000 this year, under the supervision of Mrs. Wrench.

Napier Barracks. Formerly occupied by the Military, these barracks have become handy for the temporary accommodation of the Sind Government Secretariat. Though old, they are detached, airy and commodious blocks of buildings, used by the different departments of the Government, now under orders of transfer from Karachi to Hyderabad.

Katrak Hall and Library. This is a Parsee institution founded by the late Sir Kavasji Katrak in 1920, on Katrak Road, Sadar. It possesses a decent

theatre, which is taken advantage of by different communities for public as well as private functions. The Sohrab Katrak Library is excellent in many ways.

Temple, Curie and Sydenham Reservoirs.--These are under-ground reservoirs constructed beyond the Depot Lines and the Parade Ground. The capacity of the Temple Reservoir is 2,000,000 gallons of water and that of the Curie Reservoir is 3,300,000 gallons. Three feeding mains issue from them. To supplement these, another reservoir, called Sydenham Reservoir, is built near the New Jail with a capacity of 6,000,000 gallons but with only one feeding main. Water is chlorinated before it is brought into the reservoirs.

The District Jail. This marks the present northern end of the city, on the Sehvan Road. It was started in 1847 within the city limits but was shifted here to the vast area covering 11,000 square yards. It accommodates nearly 500 prisoners, who are occupied in small trades. Formerly greatly detached from the city, it now lies close to the ribbon growth of the Extension.

3. RELIGIOUS PLACES.

Karachi, having quite a cosmopolitan character, there is a large number of places of worship but few of them can be called majestic and attractive in their structure, except some Christian churches. There is no great Juma Masjid worthy of the capital of Pakistan as yet built. The Hindus, being caste-ridden, have had numerous temples devoted to different gods and goddesses in the different parts of the old city. The Parsees, having no such caste restrictions, have established only two temples called Dar-i-Meher (Gate of Light) to cater for the religious needs of the community in the two different residential quarters of the city. Now is the time for the great Muslim community to erect some worthy religious monuments in the capital City.

(i) CHRISTIAN CHURCHES.

The Trinity Church. Situated at the junction of Victoria Road and Strachan Road, this is the largest Anglican Church in Sind. It was consecrated in 1855 and has a prayer hall accommodating 800 worshippers. It has a square clock-tower, which was formerly 250' high and was visible from near the sea coast, but later on it was reduced to a height of 210' only due to a mishap. There is an extensive compound with premises for the parsonage located in its northern corner.

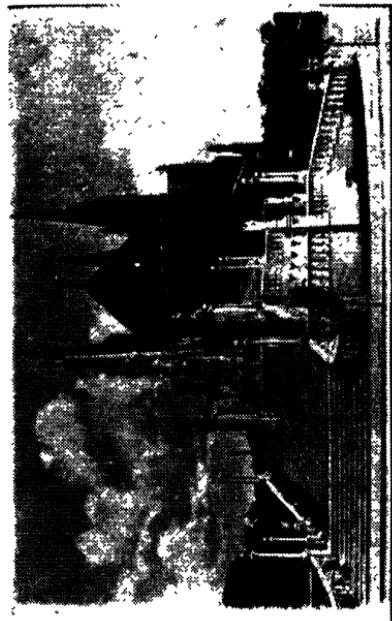
The Howard Institute is housed on one side of the compound in a separate block and the Widow's Home is in another set of pretty buildings, called the Trinity Lodge.

St Patrick's Church. This "First Christian Temple in Pagan Scinde", dedicated to St. Patrick, was established in 1845 by the Irish Church and used by the Roman Catholic community of Karachi. The present Convent Assembly Hall was the old church building. The new one is built in the Gothic style with a prayer hall accommodating nearly 1,500 persons. Education is combined with religion and in the compound there are the St. Joseph's Convent and a Girls' High School and College on one side and the St. Patrick's Boys' High School on the other. There is a grand marble monument, erected in 1931, to perpetuate the memory of the Jesuit Mission in Sind (1858-1935) dedicated to Christ the King, in front of the church with the following inspiring inscription :

"Thou art Peter
And upon that rock
I will build my church".

Underneath the monument, in an underground chamber, there are models of heaven and hell exhibited.

C. M. S. Church. The Church Mission Society established this church in 1856 at the junction of Lawrence Road and Mission Road. The accommodation is limited to 200 seats. There is the Church Mission School attached



1. The Mosque
2. St. Patrick's Church (Christ's Monument)
4. Hindu Temple.

to it. Both the Church and the School are taken advantage of by the native converts to Christianity and their progeny. The missionaries maintain a good standard of education.

Scottish Kirk of St. Andrew's. This is a gift of the Scottish Church, standing on the Victoria Road. The stone building, which was erected in 1858, has a steeple 135' high and a prayer hall accommodating 400 persons.

Methodist Episcopal Church. This church is situated on the Garden Road and has a building of stone and brick, consecrated in 1875. It is patronized by non-conformists and can accommodate 250 people. There is a Soldier's Institute attached to it. A Wesleyan Chaplain always acts as its Pastor. The Karachi Music Society is housed in a separate block in the compound and encourages classical European music.

St. Paul's Church. In 1865 a memorial church was raised in honour of Sir Charles Napier at Manora. It was opened in 1865 and has only 50 seats.

(ii) PARSEE ZOROASTRIAN TEMPLES.

Hirjikaka Dar-i-Meher. The earliest temple was founded in 1845 from a charity of the Hirjakaka family and has been called Hirjikaka Dar-i-Meher. The present building is in Frere Street, Saddar Bazar. It has been renewed several times and now possesses an attractive frontage with a Persepolis touch of architecture. The Sacred Fire (the emblem of the Divinity) is kept eternally burning here. It is not the fire that is worshipped by the Parsees, but it remains only as a visible earthly symbol of God. Religious ceremonies of the dead are performed in the special Minwala Hall devoted to the purpose. The upper storey is reserved for sermons and other Muktad ceremonies, performed annually during the holy Gathas and Farvardegan days, in memory of the dead, at the end of the Parsee year. The dome structure is always hidden underneath the roof. This entire religious place of worship is a result of accumulated charities, made in the name of

the departed dead by their relatives from time to time, but its locality is now quite unsuitable.

Garikhata Dar-i-Meher. Another Parsee Dar-i-Meher is in Garikhata, adjoining the D. J. Sind Government College. It was founded by the late Mr. Dossabhai Merwanji Wadia in 1875 and renovated by Sir Jehangir Kothari and Sir Kavasji Katrak. During the last century and even the earlier part of the present century, a large number of Parsee families lived in Garikhata. But most of them have since migrated to the Katrak Parsee Colony, founded by Sir Kavasji Katrak in 1923 at the Bundar Road Extension. Very few Parsees now live in Garikhata and so this Zoroastrian temple is out of place in this locality. It can be conveniently shifted to the Katrak Colony.

(iii) HINDU TEMPLES.

Different Hindu castes have established different temples at different times ; some of them are, - The Swaminarain Temple on the Bundar Road, near Garikhata belonging to the Gujarati Hindus ; the Hatkesh Dewal in Jodia Bazar belonging to the Nagirs ; the Rameshwar Mahadev Temple, the Chandimata Temple, the Ram Mandir etc., all situated in Hindu localities. The Jains have their temple in Ranchore Lines, the Saraswati Brahmans in Old Town, the Sikhs on Rambaugh Road and at Clifton, the Kathiawar Brahmans have established what is known as the Shankaracharya Temple. Even on the island of Manora a strange temple, called Daryalal Temple, dedicated to the goddess of waters, was consecrated in 1889. South of the Mahatma Gandhi Garden, on the Lawrence Road, there is a Samadhi of Chima Saheb, the younger brother of the Raja of Kolhapur, who died here in 1887. The Garden, called Merewether or Commissioner's Garden, once belonged to the ex-Rani of Satara.

* (iv) MUSLIM MOSQUES.

Adam Masjid. Near to the Municipal building on the Bundar Road, the Borah community have built a

beautiful mosque called the Adam Masjid. It is made of Jodhpur red sandstone and has a commodious hall with double galleries. The chandeliers in the prayer hall are worth seeing, as also the stained glass with the 99 names of Allah inscribed on it. There are other inscriptions in Persian as well. There is a library, a reading room and the boys' and girls' schools attached to the mosque, showing how progressive the community has become.

Kasai Masjid. In Saddar Bazar. It caters for the spiritual needs of the Muslim community in Saddar Bazar. Though small, the usual dome structure is impressive.

Memon Masjid. Another mosque, called the Memon Masjid, is found in Saddar. It is for the welfare of the Memon community residing in this area.

Bhimpura Bukhari Mosque. This also is a fine place of worship for the community.

Idgah Maidan An open-air place of worship on the Bundar Road. It is frequently used for sermons and public meetings of the faithful.

Keamari and Manora Mosques. Keamari has a Juma Mosque and there are two more situated at Manora.

Quaid-i-Azam's Grave. The last remains of the Architect of Pakistan, the Quaid-i-Azam, rest in a grave dug on top of the Exhibition Hill, Bundar Road Extension. Thousands flock here frequently. It is a beautiful site for a mausoleum now under construction and is likely to be the future Westminster of Pakistan.

Hidayatullah's Grave. This grave, containing the body of the first Sindhi Governor of Sind, Shaikh Ghulam Hussain Hidayatullah, the G.O.M. of the province, can be visited near the Idgah Maidan, off Bundar Road.

Chhuttani Masjid. An old mosque near Fish Market at Islamabad, Khudda, is for the spiritual welfare of the fishermen living in this locality.

(v) THEOSOPHICAL SOCIETY HALL.

This time-honoured semi-religious and cultural Society has its own building with a decent lecture hall on the Bundar Road, opposite the office of the District Local Board. Public lectures and sermons are delivered from time to time and there is a free reading room and library attached to the premises. Many a soul-stirring religious service or recital has been held in this institution in the past on a non-communal basis of universal brotherhood.

4. INSTITUTIONS OF EDUCATION.

In matters educational Karachi has so far cut a sorry figure. As only an appendage of the Bombay University, Sind was much neglected and the progress in education, higher as well as lower, was slow. Hardly six Fellows represented Sind in the Bombay University Senate and that too for many decades. The proverbial conservatism of the Hindus and the backwardness of the Muslim community contributed to this condition and so Karachi cannot be compared to Lahore or to Delhi as regards educational institutions. For nearly 60 years, a single college catered for the higher educational needs of Karachi and of Sind. Sciences were almost neglected and when the teaching of Science was actually commenced in the Karachi College, twenty-five years ago, some of the important fundamental sciences, like Geology and Geography, were totally ignored. It was only when fresh charitable donors came forward that the D.J. Sind College gave birth to other infant institutions like the N.E.D. Engineering College, the Law College and the Commerce College. For long this combined Arts and Science College was over-crowded with students and Muslim interests were jeopardised to some extent. Then, in 1940, the Sind Madressah Board started the Sind Muslim College for the first time under the Principal Dr. Siddiqi and later on, its off-shoots of the Law and Science branches, for the welfare of their own community.

In the school line, the earliest pioneers were the Christians, followed by the Parsees in 1859. Their schools have already celebrated the golden jubilees. The N. J. High School was the only Government High School for long and a couple of decades ago when it over-flowed with pupils and became unmanageable, certain classes were closed down and private institutions in their place grew like mushroom schools on sectarian lines in Karachi, as the population of Karachi also went on growing rapidly. Before the Partition the number of high schools in Karachi rose to 50 but today with the exodus of the Hindus it has dwindled down to about 15.

Female education is, as usual, proverbially backward, although there are some good communal schools in existence even now.

On the whole, educational advancement has been a patch work, like the extensions of the city itself. Nothing has been planned with a purpose. Even technical education has been restricted and truncated in many ways. There is a good deal of incompetent red-tapism and mismanagement in some quarters. In a subject like this, more of idealism, freedom of experiments and administration, co-operation and co-ordination of activities are needed. These the Central Pakistan Government no doubt will now supply.

(i) UNIVERSITY OF SIND.

After a couple of years' controversy in the Sind Legislative Assembly, the Sind University Act of 1947 was passed and the University came into being the same year. It is, therefore, hardly two years old but has made some good progress. It is temporarily located in the Pir Illahi Bakhsh Teachers' Training College Building, which is the most magnificent school building on the Bundar Road, just completed. It is designed to be both an examining and a teaching University, open to all classes and creeds, with His Excellency the Governor as the Chancellor and the Premier of Sind as the

Pro-Chancellor. The first Vice-Chancellor, Prof. A. B. A. Haleem, is a full-time salaried officer. The first Senate, with H. E. Sir Francis Mudie as the Chancellor, met on June 24, 1947. The Government have nominated 50 Fellows and there are some 22 ex-officio Fellows, from amongst the Government officers and Principals of Colleges. The communal proportion is kept up at 70 per cent Muslim and 30 per cent non-Muslim. The Syndicate, the Academic Council, the various Boards of Studies and the Boards of Post-graduate Studies and Research are the controlling authorities. The institution is maintained largely by Government grants. A permanent University township has been planned beyond the District Jail, Bundar Road Extension.

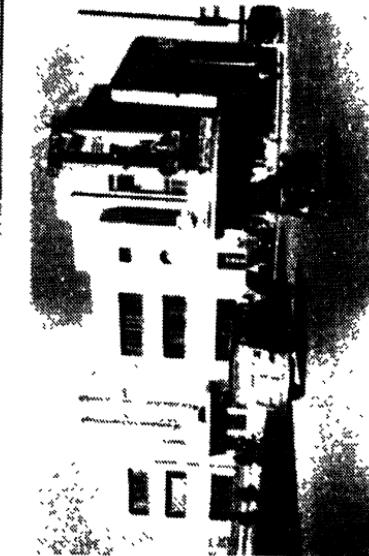
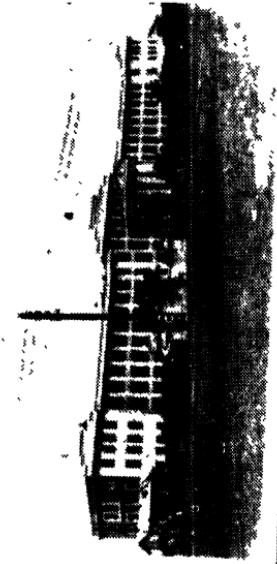
H. E. Justice Din Mohammed is the present Chancellor of the University. Among the special features of the University are the compulsory study of Theology, English, Sindhi and Urdu languages for all Arts and Science students. Every community has a chance to give the most necessary religious education to their youth, according to their faith. Nearly all sciences are introduced and provision has been made even for local geology and geography in the University courses as well as for post-graduate studies and research in these and other subjects.

(ii) COLLEGES.

D. J. Sind Government College. It was established in 1887 in Garikhata and named after the Hon'ble Mr. Dayaram Jethmal, an influential Hindu gentleman of those days, who was able to collect a sum of Rs. 30,000 by public subscriptions. The building is a majestic structure in the Italian architectural style with graceful domes and massive pillars and has two storeys. At first it was called the Sind Arts College. A small Engineering branch was opened with a three-years' diploma course in Civil Engineering, catering for the upper subordinate service. The Metharam Hostel, a gift made by the Diwan Metharam Dharmada Trust, accommodating 150



S.U. ARTS COLLEGE



1. Sind Muslim Arts College
2. Jinnah Court (Muslim Hostel)
3. Paradise Theatre
4. D. J. Sind Science College



2. Jinnah Court (Muslim Hostel)
4. D. J. Sind Science College

boarders, is situated on the other side of the road. On the whole, this institution has rendered yeoman services to Karachi in the sphere of Collegiate education. It has now been taken over from the Sind Collegiate Board by the Government of Sind.

N. E. D. Government Engineering College. The Engineering branch of this institution grew into a full-fledged Engineering College for the Degree Course in 1922 as a result of the munificent Parsee gift of Rs. 2,00,000 lakhs from the Edulji Dinshaw family. The Sukkur Barrage was shortly to be built in Sind and Sindhi engineers were required to help in the construction of this gigantic engineering structure. As the college could not provide for a hostel, the Trustees of the Sarnagati Trust have built what is called the Seva Kunj Hostel, accommodating about 130 students, and it is a great blessing especially to engineering students.

Law and Commerce Colleges. Later on, the Law College and the Commerce College were also established in the same compound by the Sind Collegiate Board, governing all these colleges. As the numbers grew rapidly and more space was required, an annexe was constructed a few years ago on an adjoining plot occupied by the Arts Section of the College. After the Hindu exodus from Karachi, the Sind Government have taken over all these colleges. The Arts College has been removed to Hyderabad and in its place the Sind Muslim Arts College has been shifted to the Annexe. The main building is occupied by the Science Faculty, teaching some branches of Science, like Chemistry, up to the M.Sc. standard.

Sind Muslim College. Established in 1942. It is really an off-shoot of the Sind Madressah-tul-Islam and a boon to the Muslim students. It is still maintained by the Sind Madressah Board. Science teaching up to the Intermediate standard is given, while in arts the courses are extended up to the M.A. degree. The College has grown also into a Law College branch, now teaching up to the L.L.M. standard. The Arts Section is, for the

present, located in the old D. J. Sind Arts College building in Garikhata.

Islamia College. This College is not even a year old but has its proper place in the evolution of higher education in Karachi. It has been patronized by the new Sindhis and has been generously supported by Mr. A. M. Qureshi as the chief donor and Maulana Shabbir Ahmad Usmani as the President of the Board. It is at present located in the old W. B. High School on Clayton Road, Bunder Road Extension. Among its special features are the U. O. T. C. and the advanced study of Islamic culture. This is the only college in Karachi and Sind, teaching the science of Geography up to the M.A. and Ph. D. standard. Special arrangements have been made for purdah ladies and the whole College is like a happy family. It really needs some Government patronage.

Dow Medical College. The handsome buildings, belonging to the Dow Medical College, have been recently constructed on the old site of the N. J. High School premises. A first-class and up-to-date college, it teaches up to the M.B., B.S. degree course. The building blocks, the laboratories, the dissection rooms, the assembly hall etc., are worth seeing. The college supplies a great need, as the Hyderabad Medical School was the only school in Sind, so far, teaching for the L.C.P.S. Diploma merely. This College takes full advantage of the adjoining Civil Hospital. It is also intended to do postgraduate teaching in this College.

Pir Illahi Bakhsh Training College. This new and much needed college has its location on the Bunder Road. It is a government college and shares its beautiful premises with the University of Sind for the present. It teaches up to the B. T. degree standard and has some of the classes of the N. J. V. High School as its practising school.

Karachi Geographical Society. This Society, hardly two years old and a gift of the Sarnagati Trust, of whom Mr. Kewalram Dayaram is the sole trustee, has organised

Training classes for teachers of Geography in English and in Urdu and has been conducting research work of a geographical character under the supervision of the Honorary Director. It is at present located at 57, Seva Kunj Hostel, Rambaugh Road, Garikhata. A Diploma in Geography and Geography Teaching is awarded at the end of a year's course of intensive teaching in theory and practice, and in field and laboratory work.

College Students' Hostels. There are three students' hostel establishments in Karachi, viz., Jinnah Courts on the Kutchery Road, Seva Kunj Hostel on the Rambaugh Road and Metharam Hostel opposite the D. J. Sind Government Science College. All of them are over-crowded but all are excellent in their own amenities of student life. The Dow Medical College and the Sind Muslim College maintain their own boarding houses.

(iii) SCHOOLS

C. M. S. High School. Of the high schools, the Church Mission High School is the oldest. It was founded in 1846 by Colonel Preedy, the first Collector of Karachi, as a free school. The present site was acquired from the Municipality in 1852 and the building was made of sun-dried bricks. It was later handed over to the Church Mission Society. Christian teaching is a special feature. It teaches up to the Matriculation standard of the Sind University, has its own play-grounds and branch schools for Sindhi and Gujarati boys in the city. Religious services are conducted in the neighbouring church, belonging to the C. M. S. Society.

Karachi Grammar School. It was the second school started in Karachi, but again as a communal school in 1847. The present site in Depot Lines was acquired in 1875. It is a mixed school for boys and girls for Europeans and Anglo-Indians and has now a certain percentage of non-Christian pupils allowed. Candidates are prepared only for the European High School and Cambridge Local Examinations and the Institution is supported by grants

from the Government, the Municipal Corporation, the Cantonment Committee and the N. W. Railway. The school has a fine record of sports, especially boxing.

N. J. V. High School. The biggest High School in Karachi. This N. J. V. High School was commenced as the first English School in Sind in 1852. As the Dow Medical College is now located on its old site on the Bundar Road, this school has been broken up into sections and housed in different buildings, one of them particularly in the Pir Illahie Bakhsh Training College Building. It has 4 departments : Marathi, Sindhi, Gujarati and Urdu. It is still named after Narayan Jagannath Vaidya, a renowned educationist from the Ratnagari District. So great was the rush of students into this school that for some years it had to work in double shifts and at last some sections had to be discontinued. About the year 1930 many private schools sprang up in Karachi as a result of this step taken by the Government. The School has a fine record of examination results, sports, games, scholarships, etc. It is a mixed school for boys and girls.

B. V. S. Parsi High School (Technical). The next school that came into being in Karachi was a Parsee Balakshala, very much needed by the Parsee community, in 1859, and gifted by the Soparivala family. Religious education was made compulsory. It first grew into a primary, then a middle, still later on in 1920 a high school and lastly a technical high school, the only one of its kind in Sind. The school has developed good traditions and had it not been for the improper management of this Parsee institution, it would have risen still higher and even a full-fledged college would have grown out of it, for the benefit of the whole of Saddar Bazar and Civil Lines. The present magnificent buildings on the Victoria Road were opened in 1906. Free education is given to boys of poor families, who are also fed during the day. Formerly only a restricted number of non-Parsees could join this school, but now there seems to be no limit to their admission.

Although the foundation of the much needed technical education was laid in this School more than a decade ago, it was only in 1945 that technical high school classes were actually started. Thus the credit of establishing the first full-fledged Technical High School goes to the Parsee community in Pakistan.

St. Joseph's Convent High School. This school has been attached to the St. Patrick's Church in Saddar. It was started in 1861 by the nuns of the Congregation of the Daughters of the Cross and has gradually grown into a high school for Christian as well as non-Christian girls. There are two divisions made: A division for European and other boarders, teaching up to the Cambridge Local Standards and B division as a day-school for others, who are prepared for the Matriculation examination of the Sind University. A high standard of English is maintained and classical music is well attended to in this institution. The pupils are also thoroughly trained in handiwork, including geography work.

St. Patrick's High School. In the same compound, this sister institution admits boys of all classes and communities. It was formerly a mixed school up to 1862, when the girls were separated. The present building was constructed in 1893. Religious education for Catholic students is compulsory. The school is proud of possessing some splendid playing-fields. Its sports record is excellent all throughout.

Sind Madressah-tul-Islam. It was started in 1885 on the Frere Road. A noble example of Muslim charity and the result of a struggle for higher education among the Muslims of Sind, it is well patronised. It was founded by the late Khan Bahadur Hasanali Bey Effendi, President of the Sind Muslim Association. The Madressah Board is still the controlling authority. Religious education for Muslim students is a special feature. The school maintains two mosques. It has a beautiful two-storeyed building in the shape of a quadrangle, a boarding house and extensive play-grounds. The Sind Muslim Science

College and the Law College are housed in some detached buildings in the same compound

Mama Parsi Girls' High School. It is a costly building, built of the local limestone and Jhangshai sandstone, on a free site given by the Government on the Bundar Road. A nucleus of its endowments has been found in the munificent donation of Rs. 1,35,000, from the estate of the late Mr. N. N. Pochaji. Formerly sectarian in character, it is now a secondary school for girls of all communities. Technical classes for laundry, cooking, sewing and stenography are the special features.

Karachi Academy. This gift of the Borah community, with the chief benefactor Seth Tayabali Alavi, is near the Adam Masjid, off Bundar Road. It is also a boon to Borah boys and girls, though some non-Muslim students are now admitted.

Other Schools. Among the other secondary schools are the Model High School on the Tayabji Road, the Modern High School on the Outram Road, the City High School on the Frere Road, the Central Pakistan Government High School for Boys in Garikhata, the Central Pakistan Government High School for Girls on the Mohammad Ali Jinnah Road and the Central Pakistan Government High School for Boys in Jacob Lines, the last three for the benefit of the children of the employees of the Government of Pakistan.

A large number of Municipal Primary schools is maintained by the School Board of the Karachi Municipal Corporation. English is taught only in a few of them. Experimental compulsory primary education was started in the Karachi area by the School Board, but it has not been quite a success.

Ida Rieu School for the Blind. The only school of its kind, it is worth visiting. Boys, who are blind, are taught reading and writing, by the Braille system, and some handicrafts, for which the students have made a name in Karachi. There is no age restriction. It is named after the wife of a Commissioner in Sind, Mr. Rieu. Music is also a speciality of this school for the Blind.

Remand Home for juvenile offenders is just next door.

Church of England Zenana (C. E. Z.) Mission Schools. This mission used to run a Teachers' Training Class, an Industrial School and a number of primary schools. The headquarters are at 3A Staff Lines with Miss Carey, the oldest missionary lady in Karachi, in charge. As the Hindus have migrated, most of their schools are discontinued.

5. HOSPITALS AND DISPENSARIES.

In a healthy city like Karachi there can be no need of many public institutions to look after the health of the people. But Karachi is unfortunately not altogether free from epidemics such as typhoid, small-pox, pneumonia, malaria, diseases of the skin, eyes and stomach, etc., due to the infection carried by dust and water, flies and mosquitos. In the noble work of maintaining public health and sanitation the Government, the Municipal Corporation, the Cantonment Authorities, the Karachi Health Association and the different communities have all co-operated to keep Karachi clean and free from diseases. Some hospitals, dispensaries and asylums of different kinds have been established in different quarters.

The Civil Hospital. It is a group of buildings on the Mission Road, established in 1854 with general wards, special wards, nurses' quarters, a special eye-hospital, an epidemic diseases hospital and an X-Ray laboratory. To the Dow Medical College it has become a most valuable adjunct.

Military Hospitals. The Station Hospital, used till lately by the British Army, was opened in 1870 and expanded in 1890 as an up-to-date military hospital, which has rendered yeoman services during the two World Wars.

Another Military Hospital beyond the Golf Lines and near the Cantonment Railway Station is equipped

for nearly 150 patients. It is one of the best in the country, meant originally for the use of the British military men.

Yet another Military Hospital near the Overseas Rest Camp has been reserved for the Pakistani soldiers. It has a decent X-Ray department.

Jinnah Central Hospital (Napier Barracks) and *Mrs Fatima Jinnah Maternity Hospital* are among the newly founded ones. The former was, once upon a time, a military hospital on the road to Drigh Road and behind the Napier Barracks. It is one of the best equipped and well managed institutions.

Lady Dufferin Hospital. Situated in the Princess Street, it is a blessing not only to the well-to-do but also to the middle and the poor classes of women. Parts of the building have been donated by Parsee benefactors. The nursing staff of this hospital is considered to be the most efficient. There is a Training Class for nurses conducted by the authorities.

Goverdhandas Motilal Mohatta Eye Hospital. This can be visited on the Mission Road; is a great blessing to those suffering from eye diseases; even difficult operations are performed.

Richmond Crawford Veterinary Dispensary. This dispensary can be found on the Bundar Road near the office of the District Local Board. It was established in 1892 and has wards for horses, camels, dogs and cattle. There is, moreover, a shoeing forge attached to it.

Red Cross and St. John Ambulance Brigade Building. It is situated in the Depot Lines near the Empress Market. The building is a gift of the late Sir Kavasji Katrak.

Sobhraj Chetumal Maternity Home. This is for the benefit of Hindu women and is located off the Burns Road in Garikhata.

Hiranand Lepper Asylum. This asylum for the welfare of persons suffering from the dreadful disease of leprosy, situated at Mangho Pir, near the hot springs, is

the only one of its kind in the whole of Pakistan. The buildings were constructed in 1896 in memory of Sadhu Hiranand, a Hindu saint of Sind. There are nearly 100 beds for lepers, who throng here from many parts of India and Pakistan. The inmates are greatly benefited by daily baths in the ponds provided near the hot spring. The asylum has to depend much on public subscriptions and donations from the charitable people of Karachi. Its surroundings are not very healthy.

Ojha T. B. Sanatorium. This is situated beyond the District Jail and is a great boon to those suffering from tuberculosis. A vast area has been occupied and it promises to be a first-class sanatorium, though it is rather too near the growing city limits.

Among other private and public dispensaries there are the Gulbai Nusserwanji Mehta Maternity Home, Garden Road, reserved for Parsees ; the Edulji Dinshaw Dispensary and other dispensaries and maternity homes donated by charitable donors, but maintained by the Karachi Municipal Corporation.

6. RECREATIONAL CENTRES.

Communal institutions have likewise sprung up in Karachi in the form of Gyinkhanas and Clubs, which are scattered in various parts of the city. Many of them are small and cater for the needs of the different communities. There are only two public gardens, which are quite insufficient lungs of the city. There are no large stadiums, public baths, etc., which the city can easily afford.

Karachi is lucky to have a good number of places for picnics viz. Malir, Mangho Pir, Clifton, Sandspit, Manora, the Hab valley, Hawkes Bay, Mauripur and Dumlott Water Works.

Karachi Gymkhana. This is the oldest recreational centre, formerly reserved entirely for Europeans. It was established on the Scandal Point Road in 1886. The present building in the Tudor style on the Khuhro Road

is attractive. Lately, it has become a mixed club, a certain percentage of non-European members being allowed. There are several cemented tennis courts, a ball room, a card room and an excellent cricket pitch, the rendezvous of the sports-loving public of Karachi.

Karachi Club. The only cosmopolitan club in the city, this is situated on Kutchery Road. Though it was actually started in 1905, the present spacious building was constructed in 1912. It possesses a fine dining-hall seating 100 guests, a tennis court and card rooms.

This Club has an excellent Annexe on the Queen's Road, overlooking the Chinna Creek, providing bath and boating facilities to the members of the Karachi Club and their guests.

Golf Club. This Club and its links occupy extensive grounds in front of the Military Hospital. There are two courses—one for men and the other for women. Golf activities are regular and several trophies are annually awarded.

Karachi Parsee Institute. It can be visited behind the Roman Catholic Church on the Sangster Road. The Parsee community was among the earliest to start a private club and gymkhana for the young and the old as early as 1893. There are several amenities for the members, *viz.*, the Katrak Swimming Bath, a rarity in Saddar Bazar; tennis courts, billiard rooms and the Kothari Pavilion. Ladies are allowed to take advantage of out-door games on certain days of the week. The Institute possesses a first-class cricket pitch and hockey grounds. Besides these, there are some very good lawns and gardens attached to it.

Hindu Gymkhana. Nearly 47,000 square yards of land are occupied by this gymkhana, which was started in 1927 on Ingle Road. The building is constructed in Oriental (Hindu) architecture. As the Hindus have virtually vacated the city, the buildings are at present occupied by the Pakistan Public Service Commission.

Sir A. M. Muslim Gymkhana. It was also started in 1927 for the benefit of Muslim youths of Karachi and is next to the Hindu Gymkhana. There are suitable cricket grounds and the Haji Abdullah Haroon pavillion is built on one side

Karachi Boat Club. Among the few Boat Clubs that Karachi possesses, this one is situated beside the Chinna Creek and next to the Karachi Club Annexe. It has rowing, bathing, diving and swimming facilities.

Goan Gymkhana. This occupies a fine site on Mohammad Ali Jinnah Road (Bunder Road Extension) and belongs to the Goa-Portuguese Association. It was started in 1927. It has tennis and badminton courts and a decent cricket pitch.

Young Men's Christian Association. One of the best recreational centres in Karachi, with vast play-grounds and in-door game facilities. This Association has its buildings on the Havelock Road, opposite the Governor-General's House. Christians are admitted as members and Non-Christians as associates. There is a library and a reading room attached to the Club. There are some good residential quarters in the upper story. The Y. M. C. A. hockey grounds are among the best in Karachi.

Young Women's Christian Association. A separate organisation for women exists on the Bunder Road. There are various recreational facilities including a boarding house for girls.

Young Men's Zoroastrian Association. In 1920 Sir Kavasji Katrak gave another valuable gift to the Karachi Parsees in the form of a commodious building, a library named after his son, Mr. Sohrab, a lecture room and a theatre. The Association premises are next to the Zoroastrian Club on the Katrak Road, which is the oldest Parsee Club in Karachi, having been established in 1882.

Young Men's Muslim Association. The Muslims have provided this gymkhana for their youth since 1925 in Sardar Hashim Khan's bungalow at the corner of Lawrence

Road and Gandhi Garden. Activities are run on the lines of the Y. M. C. A.

J. P. Dubash Health Culture Institute. This is another Parsee gift and has its premises established on the Kutchery Road, opposite the Palace Hotel, in 1933. There is no other institute of this kind, providing for indigenous physical culture exercises and open to all communities.

North-Western Railway Traffic Institute and Sports Club. These are located on the McLeod Road, opposite the city station. The institute was started in 1903 and the Sports Club in 1897. It is reserved for Railway employees.

Sind Club. It has very attractive and comfortable residential quarters, drawing and dining rooms, etc., all reserved for Europeans. It is on the Victoria Road opposite the Premier's House. There is a dog's tomb in the garden with an unusual inscription : "In memory of Snubby, My Small Dog, 1934—45".

British Union Jack Club. --A spacious building on the Victoria Road, this is the only Club in Karachi, primarily intended for the British officers and soldiers and their families.

Pakistan Union Jack Club. --This is found near Napier Barracks and serves the community very well.

Pakistan National Guards. --This useful institution, with its headquarters on Victoria Road, next to Paradise Theatre, gives an opportunity to the youth of Pakistan to serve the State in all emergencies.

Pakistan Women's National Guard. --This is the Women's Section of the National Guards doing great service in various feminine ways under the care of Begum Liaquat Ali Khan, the Premier's wife.

Boy Scout and Girl Guide Head Quarters. The Headquarters of the Pakistan Boy Scout Association and the Girl Guide Association are situated in the same compound on the Strachan Road opposite the Y. M. C. A. The Sobhraj Chetumal building and the Lady Haroon building

belong to the former and the latter Association respectively.

Besides these, Karachi has an up-to-date Sea Scout Association, whose headquarters are on the New Queen's Road, next to the Boat Club.

The activities of all these associations are useful and varied.

U. O. T. C. The University Officers Training Corps with its headquarters in the Metharam Hostel, D. J. Sind College, consists of the following units.

Islamia College—One platoon.

Dow Medical College—Two platoons,

D. J. Sind Government College—Two platoons.

S. M. College—Two platoons.

N. E. D. Government Engineering College—One platoon.

Burns Garden. On the Kuchery Road. Some 25 acres of land have been reserved for these gardens, which are a boon to the inhabitants living in the congested parts of the city. It was once a waste land but was converted into fine gardens by Mr. Burns. who took personal interest in it. There are excellent flower beds, lawns and walks and also a vinery, which is worth seeing. Grapes grown in this garden are exported every year in the summer season.

Mahatma Gandhi Garden. This beautifully laid-out garden, nearly 47 acres in area, has some historical associations. At first it was occupied by a factory of the East India Company. After the Karachi Municipality took charge of it in 1860, some European officers, taking a keen interest in its growth, have left a first-class garden for the people living in Garden Quarters to the north of the city. Mr. T. L. F. Beaumont, after whom some lawns are named, was particularly interested in it and laid out plots

for vegetables, flowers and fruits of many kinds. The soil is fertile, as it is derived from the old Lyari river valley and its alluvium. Here, too, the vinery is an attraction, the vines having been transplanted from California in 1893 by Sir Evans James, Commissioner in Sind at that time.

The climate of Karachi is particularly favourable to most animals, even tigers and lions and also to some rare birds, which now form the Zoo attached to the Gardens.

Arambagh. Formally called Rambagh, it is only a recreation ground, frequently used for public lectures and mass meetings.

Mackenzie Pavilion and Playgrounds are in Saddar.

7. INDUSTRIAL AND COMMERCIAL CENTRES.

In matters industrial, Karachi can be said to be just an infant. There are no large industrial concerns worth mentioning, except the Salt Works at Mauripur and the Cement Factory at Drigh Road. Those interested in Karachi's small industries would find a Tiles Factory, a Soap Factory and some ice factories on the Lawrence Road. On the same road there are some flour mills, due to the bumper wheat trade in Sind. There is a Shark Liver Oil Factory on Kutchery Road. Fisheries have a prosperous trade on the Karachi coast, some fish curing yards are in sight at Khada, while a number of small concerns such as the Bone and Hoof Crushing Factories (Mangho Pir Road), Oil Mills, Saw Mills, soap factories, etc., in the city have some attraction. There are no cotton mills as yet started in spite of the best cotton grown in the province, even cotton yarn for fishing nets is also in short supply. Among other small-scale industries, there are some tanneries, chemical works, an electric lamp factory, carpet weaving factories, etc. Prominent among the commercial firms are those of David Sasson, Ralli Bros., Mackinon Mackenzie, Forbes Campbell, Graham Trading, Cox and Kings, Pakistan Shippers, Eastern Express, etc.

A large number of banks can be found on the McLeod and Bundar Roads, the latest addition being the State Bank of Pakistan.

Nature of Commercial Transactions in Karachi.

The following list of goods* liable to taxation, gives an idea of the nature of commercial transactions in Karachi :

(1) The scale of the following goods is exempt from sales tax at all points :

(a) Electric energy, (b) Goods which are subject to excise duty leviable under the Opium Act, 1878, (c) Hand-spun yarn, (d) Cloth woven on handlooms in the Provinces of Pakistan, (e) Raw jute, (f) Printed books, maps, charts, periodicals and newspapers, (g) Kerosene, (h) Motor spirit, (i) Matches. (j) Sugar, gur and molasses, (k) Tobacoo, including manufactures of tobacco. (l) Betelnuts and pan leaves, (m) Tea, (n) Salt, (o) Unginned cotton, (p) Old gunny bags.

(2) A. The sale of the following goods is taxable only at the first stage at the standard rate of six pies in the rupee :—

- (a) Cereals and flour made from cereals (including paddy, rice and rice flour), pulses (whole or split) and fodder.
- (b) Cotton and cotton seeds.
- (c) Hides and skins.
- (d) Electric lighting bulbs.
- (e) Bullion or specie (other than ornaments).
- (f) Fresh fruits, fresh vegetables, potatoes, onions and dates.
- (g) Fresh milk.
- (h) Fish, fresh or dried.

Provided that in the case of item (e) the rate of tax shall be one quarter of one per cent.

* Issued by the Ministry of Finance, Government of Pakistan.

B. The sale of the following goods is taxable only at the first stage but at rates higher than the standard rate : -

Description of goods	Rate of tax per rupee of the turnover.
Mustard oil.	
Fruits, dried, all sorts other than dates.	
Wool and animal hair.	
Crushed bones, bone grits, bone meals, horn and hoof meals and leather meals.	
Manures, all sorts, including chemical fertilizers.	1 anna.
Paper and stationery.	
Cycles.	
Tyres and tubes.	
Motor vehicles sold for less than Rs. 10,000	
Cloth, all sorts (other than handloom cloth woven in Pakistan.)	
Yarn.	
Second-hand clothing.	
Gunny bags new.	
Coal, charcoal and firewood.	
Cement.	
Motor vehicles sold for Rs. 10,000 or more.	
Aerated waters	
Ice.	1½ annas.
Alcoholic liquors intended for human consumption.	
Clocks and watches.	2 annas.
	3 annas.

It should however be noted that the sale of goods in respect, of which the first assessable stage has already passed before 18th November, 1948, will be assessed at the standard rate at all subsequent stages of turnover, if such sales are otherwise taxable.

(3) The sale of the following goods is exempt from tax at the stage of sale by the producer, if excise duty is paid by him on the said goods under the Central Excises and Salt Act, 1944 :—

- (a) Mechanical lighters.
- (b) Steel ingots.
- (c) Vegetable products.

(4) An additional tax is leviable on the following goods at the first stage :—

- (1) Fabrics containing more than 90 per cent. silk or artificial silk and all articles made of such fabrics 1 anna.
- (2) Fur skins and articles made of fur. 1 anna.
- (3) Toilet articles, preparations or cosmetics, which are intended for use or application for toilet purposes or for use in connection with the care of the teeth, eyes, nails, hair or any other part of the human body, including toilet soaps, shaving soaps, shaving creams, perfumes, scents and similar preparations. 1 anna.
- (4) Any pen, pencil or pen and pencil set, sold for twenty rupees or more. 1 anna.
- (5) (a) Cinematographic, photographic and other cameras, projectors and enlargers ; lenses and other parts of an accessories to such cameras, projectors and enlargers ; and films, plate, paper and cloth required for use therewith. 1 anna.
- (b) Binoculars and opera glasses. 1 anna.
- (6) Electric lighting bulbs. 6 pies.
- (7) All other electrical goods, instruments, apparatus and appliances including fans, refrigerators, electrical earthenware and porcelain and all other accessories. 1 anna.

(8) Clocks, time-pieces and watches sold for one hundred rupees or more. 1 anna.

(9) Other clocks, time-pieces and watches and parts thereof. 6 pies.

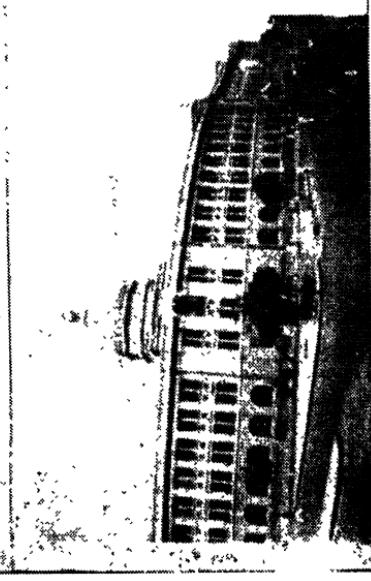
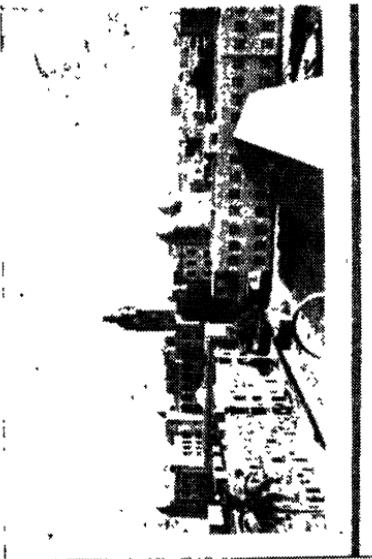
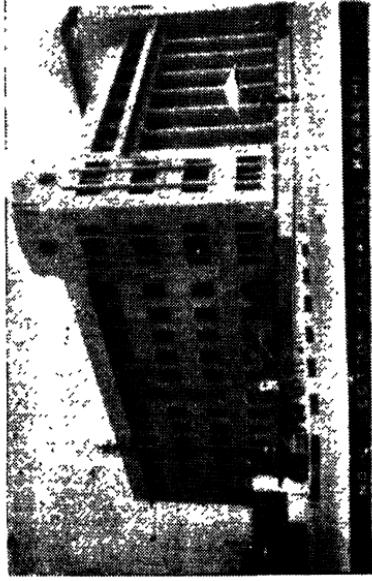
THE INDUSTRIAL TRADING ESTATE.

An industrial colony is springing up beyond the Sewage Farm, starting from the low hills north-west of Karachi and extending up to the Mangho Pir Road, under the auspices of the Industrial Trading Section of the Sind Industries Department. This Estate is one the first experiments in Karachi and Sind for the industrialisation of Pakistan. It will cover more than 2,000 acres of land and will be linked with the city by a suburban railway starting from the Port Trust. It has been planned to have some labour colonies, a net-work of roads and recreation grounds within the Estate. About 500 factories, small and big, will be established. Counting at the rate of about 200 labourers for a mill or a factory, at least 1,00,000 of them will find their daily occupation here.

For each factory, an acre and a half of land will be allotted with a lease of 99 years. But for large factories much bigger areas can be given, e.g., the Vâlika Textile Mills will have some 37 acres allotted to them. Among other works, there will be the Sind Chemicals for manufacturing chemicals and bone manure, and factories for the manufacture of clocks, hosiers, plastics, glass and hollow-wares, vegetable Ghee, etc. So close to the Sewage Farm and away from the possible sources of some good water in the Lyari river bed, this Estate is not properly located. Vast areas on the right bank of the Lyari and on the other side of the Orangi would have been much better. Besides, it is a question whether there should be any *agricultural* industries, requiring a plentiful supply of cheap power, water and labour, allowed in such an industrial satellite as that of Karachi. Hyderabad would be a better place for these.

AN INTRODUCTION TO KARACHI

BUSINESS CENTRES



1. The Cotton Exchange

2. General View of Karachi City

OTHER KARACHI INDUSTRIES

The attention of the authorities has to be also drawn to the possibilities of organising the fish industry on modern scientific lines on the Karachi coast. The Sind Government's plans are to construct a new channel on the west of the West Wharfs and to provide for a Fish Harbour, a wholesale Fish Market, boat-repair slipways, rail and road services, etc. Power boats are also to be provided. Side by side with these improvements, fish curing and fish canning industries are most urgently needed.

The share of the Refugees in the industrialisation of Karachi is valuable. Already they have started small and big concerns of their own, though many of them need space and capital.

The existing industries in Karachi are classified as under :

I. Industries based on Agricultural Products :—

- (1) Flour and other grinding mills, (2) Oil, (3) Confectionery and other eatables, (4) Cotton ginning Mills.

II. Industries based on Animal Products :—

- (1) Dairies, (2) Leather works, (3) Bee keeping. (4) Bone crushing, (5) Fisheries Industries.

III. Non-agricultural and Basic Industries :—

- (1) Salt, (2) Cement, (3) Tin, (4) Iron and steel (5) Rubber, (6) Utensils making, (7) Tiles, (8) Electrical, (9) Ice, (10) Boat, (11) Carbon and Ink Factories.

IV. Chemical Industries :—

- (1) Soap, (2) Sodium silicate Works.

V. Cottage Industries :—

(1) Handlooms, (2) Shoe Making, (3) Wood Works,
 (4) Cane Works, (5) Carpet Weaving, (6) Boxes
 and Cases Manufacture.

8. LAST RESTING PLACES.

Students and others, who visit the city, would be interested in the methods of the disposal of the dead in this city according to the rites and customs of the various peoples. *The Hindus*, as a rule, *cremate the dead bodies* on the banks of the Lyari. The Muslims bury them in different parts of the city, *e.g.*, the Lyari quarter, while the Parsee Zoroastrians expose them in some round towers, called Towers of Silence, specially built on rocky eminences in the suburbs.

Christian Cemeteries. —A Christian cemetery is on the road to Malir. Here are found several well-known tombs and memorials. There are some distinguished graves in the compound of the Roman Catholic Church as well.

Muslim Grave-yards. — Some of these graveyards are found in the Lyari quarter and near the Musafarkhaneh on the Bundar Road. Special Dargahs and tombs are in different localities.

Parsee Towers of Silence. The Parsee Towers of Silence are situated on the hill behind the Race Course and the Rest Camp. In these tall and well-built white towers, the dead bodies are exposed to the elements, particularly to the tropical sun, after a special ceremony is performed by the Zoroastrian priests in the name of the dead. This method of disposing of the dead bodies has been proved to be the most hygienic and the least expensive. There is a central well into which only the dry bones are collected periodically without defiling the mother earth. No one is allowed to enter these Towers except the corpse bearers and light is directed only from a lamp kept in a chamber, a little distance away from them. As the very name implies, silence prevails on all sides.

CHAPTER VIII

GREATER KARACHI

The city of Karachi is growing fast ; it is getting ready for a scheme of Greater Karachi and its potential satellites. As the City itself has reached the saturation point, the environs of Karachi are very suitable for such a scheme. There are some fresh-water springs in the neighbourhood, -- quite a rarity in a desert area and suitable as nuclei for the satellites ; there are sea gulfs and islands, which can be turned into picnic posts and health resorts and wide valleys between the low hills, which are suitable as air-fields ; and there are green belts along the river valleys, which can be converted into garden colonies. There are a few villages, called Goths, which are scattered in the wide intervening space but they would serve as suitable feeders for the suburbs. These can be divided into small towns in later years. Five suitable roads lead to them from the city, *viz.*, the Malir Road, the Sehwan Road, the Mangho Pir Road, the Clifton-Ghizri Road and the Korangi Creek Road. The legitimate extension of the Bundar Road is only up to the Exhibition Hill and the colonies should have ended here.

Thus a Satellite Scheme for Karachi is not only possible and natural but also desirable.

THE SATELLITE SCHEME.

Karachi has had such a sudden growth and has seen such an extraordinary rise in a comparatively short time that efforts at control and design could not be properly made, as is evidenced by the ribbon growth of the Bundar Road Extension, the hovels and slums of the Lyari Quarter and the tendency of a Gridian Plan in the Old Town. It seems again that the growth of population has resulted in the different types of human activities concentrated within the city limits and we have in Karachi not

only a transit town, a market town, a residential town, an industrial and manufacturing town but also a military town, all huddled together haphazardly into a single townmass.

Karachi must grow into a perfect social organism with the coming of the capital here and the most suitable scheme of planning for the future is that of Greater Karachi with a satellite scheme (*vide* the author's "Geology and Geography of Karachi and its Neighbourhood", Part II, 1946). Karachi can thus be expanded almost on every side, and if all the suburbs are brought within its jurisdiction, it would be beneficial to them as well as to the parent city. For long they have been neglected due to the regime of the District Local Board and now it is necessary to bring them together under the Administrator of Karachi.

GREATER KARACHI PLAN

It has been contemplated to have the Federal Capital of Greater Karachi to cover 566.8 square miles of land within a radius of more than 20 miles, including the present Karachi City, and its suburbs, such as Mauripur, Hab, Mangho Pir, Korangi Creek, Malir, Landhi, Manora and the neighbouring islands.

The following 54 Dehs or villages are also included in this area : Mann, Allah Bano, Lal Bhakhar, Mendiari, Chhatara, Moachh, Gabo Pat, Mochro, Gund Pas, Mal, Garhi, Motan, Orangi, Karikali, Pir Mangho, Halkani, Hab, Bund Murad, Jam Jo Chakhro, Sor Jani, Babrano, Gujhro, Okewari, Drigh Road, Dih, Ibrahim Haidari, Phihai, Sharabi, Drigh, Safuran, Songal, Biti Amri, Taiear, Nangan, Mokhi, Bijarhi Buthi, Tahming, Tor, Doozan, Thado, Maharan, Thano, Landhi, Gangiaro, Rehri, Khanto, Sanhro, Khakhar, Malh, Dasano Chhano, Bazar, Khar Kharo, Konkar, Nara Thar and Shah Murid.

The boundaries of Greater Karachi have been fixed as under : "On the west the boundary of Karachi is the river Hab from the point where it falls into the sea upto

the northern boundary of Deh Bund Murad ; from there it proceeds southwards and eastwards, following the southern boundaries of Dehs Mithaghar and Mahyon ; thence in the northern direction along the southern boundary of Deh Allah Phihai ; then along the western and northern boundaries of Deh Shah Murid ; from there proceeding in the south-eastern direction along the eastern boundaries of Narathar and Konkar upto Nai Langheji ; then along the southern boundary of Kathor turning towards and following the western boundary of Deh Amilano touching Nai Malir ; thence along the northern and western boundaries of Chuhar upto Nai Sukan ; from Nai Sukan along the southern boundary of Deh Darasano Chhano, the eastern boundary of Deh Khanto upto the railway line, then to the west along the railway line upto the western boundary of Deh Bakran upto the sea shore, and from there Karachi is bounded on the south by the sea (including the islands of Manora, Bhit, Baba, Bunkar and Shamspir), upto where the Hab falls into it. ”

A grand suburban railway is also projected, to have a circular route, from Malir Halt Station, crossing the Lyari and passing by the village Goli Mar and through the Municipal Sewage Farm, again crossing the Lyari river near Sher Shah village and passing through the Mansfield Import Yard to rejoin the Main Railway line. This branch railway will serve the newly designed Industrial Trading Estate, which has been located at a distance of about three miles from Karachi city and Mauripur to Mangho Pir Road.

The Lyari quarter is to be cleared up and the slums are to be removed. The main Pakistan Broadcasting Station will be located near the Landhi railway station. Among the air ports, an addition will be made of the Bholari aerodrome, about 100 miles from Drigh Road as a diversionary aerodrome.

The present area of Karachi city is 5,000 acres and it is intended to widen this area to 30,000 acres. 5,400 acres are to be reserved for factories, 4,500 for housing

societies, 1,500 for the University Town, 1,800 for the refugees, 800 for the Radio Pakistan and 2,000 for parks and play-grounds, besides the Pakistan Naval and Air Headquarters, which will require extensive grounds. In the interests of Pakistan such an expansion is inevitable and desirable; but the best plan would be to provide for a number of satellite towns with intervening spaces within a radius of about 10 miles.

THE EXISTING SUBURBS

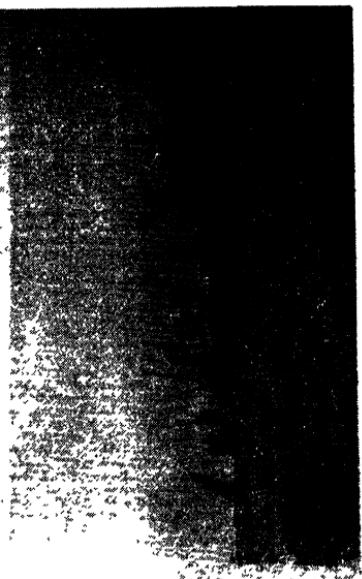
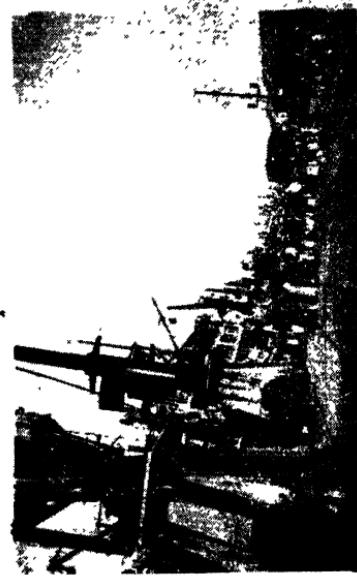
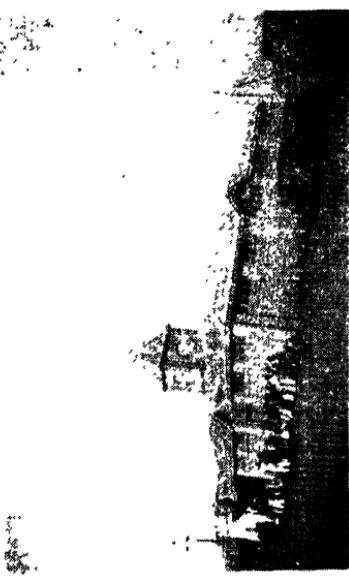
Starting from the Keamari harbour and going in a clockwise direction, the following 11 potential satellites of Karachi can be found :

1. Keamari (Harbour).
2. Manora (Fort and Naval Headquarters).
3. Mauripur (Salt Works and Air Port).
4. Mangho Pir (Spa and Sanatorium).
5. Drigh Road (Air-field and Military Depot).
6. Malir (Garden and Industrial Colony).
7. Landhi (also Garden Colony and Camping Centre).
8. Korangi Creek (Marine Air Port).
9. Ibrahim Hydari (Fishing Yards).
10. Ghizri (Stone-quarry and Sanatorium).
11. Clifton (Sea-side Resort).

1. *Keamari*. Formerly a fishing village on a separate island, it has been linked up with the mainland by the Napier Mole since 1854. It must have been actually connected with Karachi at first but parts of it were denuded by sea waves. It owes its existence to the harbour and occupies nearly 740 acres of land, parts of which are reclaimed from the sea with their height hardly 5 feet above the sea level. There is a risk in this area of tidal waves, which come occasionally. The original fishermen have migrated to the neighbouring islands of Baba and Bhit,

AN INTRODUCTION TO KARACHI

KEANARI HARBOUR



AN INTRODUCTION TO KARACHI

MANORA BREAKWATERS



(Keamari Harbour)

while the present population consists mainly of the employees of the Port Trust, nearly 15,000 strong, according to the last census. There is an acute shortage of houses, although the Trust have constructed over 1,200 quarters in this locality. An extension towards the Goth Shaikhan to the east and the Chinna Creek possible. Communication with Karachi is maintained across the Napier Mole by tram lines on one side and the Chinna Creek Harbour Railway on the other. The bulk oil installations are in the south, along the Keamari Groyne. The water supply is from the Karachi reservoirs. Actually, the destiny of Keamari is closely linked with the growth of the harbour.

2. *Manora*. The rocky head of the Manora island can be seen easily from the boat. It is a small island, a little more than a mile long and only about 100 feet high; but it is a blessing to Karachi for the safety and maintenance of the harbour. It is made of Manchar sand-stone and post-tertiary conglomerate. It is occupied mainly by the Naval Headquarters and the Cantonment and the shore establishments of various kinds, H.M.P.S. Himalaya, Bahadur and Kassim, which are a training ground for the ratings in various crafts. There is a light-house, 150 feet high with powerful dioptric light arrangements, from a lamp having 11,00,000 candle power, and giving "2 flashes of 3-10ths second each, eclipse 2-5-10ths seconds between flashes and 6-9-10ths seconds between groups". It is visible from a distance of even 70 miles in clear weather. There is also an observatory, equipped with a transit and sidereal clock. The island is extended towards the south artificially by the construction of the breakwaters, 1,500 feet long and 6 feet broad and completed in 1873. The Fort was built on the promontory originally by the Talpur Mirs in 1797. Other neighbouring islands connected by mangrove swamps are Baba, Bhit and Goth Mohd., mostly inhabited by the fishermen of Karachi. The Bunker Island is reserved for coal storage and the Shark Island is far towards the north. Sandspit is famous for its bathing and swimming facilities.

3. *Mauripur.* A double use is made of this suburb for the Salt Works and as an Air Port. It can be reached by the Chakiwara Road across the Causeway on the Lyari, past Amri Talao, and is about 8 miles northwest of Karachi. The climate being dry for the greater part of the year and the grounds being low for the admission of backwaters, Mauripur has proved to be the most suitable place on the whole coast for the manufacture of common salt. It is named after Mr. Mauri, the first Salt Revenue Officer. The works were opened in 1878. Nearly 175 acres of land have been sub-divided into small plots and salt pans with an 8-foot embankment as a protection against the high tides. The tide waters rise and fall alternately in this area. The brine is brought up from the wells, sunk alongside the pans, and is allowed to be evaporated. This is the old method. Modern methods of pumping up sea water into pans and allowing it to evaporate are also used in some works. The salt is scrapped by wooden scrapers, is washed by salt water from the wells and is then stored in conical heaps. It is exported in large quantities especially to Bengal, where, in spite of a longer shore, salt cannot be manufactured due to the heavy rainfall in both the seasons. The Bengali has a predilection for Mauripur salt.

Mauripur is now the General Headquarters of the R.P.A.F., as it has an excellent air-field with suitable runways and landing facilities.

Hawkes Bay, nearby, is an excellent bathing centre on account of the gently sloping beach.

4. *Mangho Pir.* This satellite town can be reached by a good asphalted road about 10 miles long towards the north of the city and across the Lyari river bed. It is worth visiting from the point of view of the hot springs, the leper asylum and a place of pilgrimage to the tomb of Pir Mangho. There is a certain amount of geological interest in this highly denuded anticline, now exposed in beautiful sections with an inlier of Nari (Oligocene) rocks in the valley around the hot springs, from which hot water issues continuously as from a fault.

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AIRWAYS REST HOUSES



1. British Overseas Airways Corporation "Rest House"

Excellent views can be obtained of the dips and stirkes of the strata, the escarpments, the boulders, clay beds and coral rocks. The tourists' interest in Mangho Pir is enhanced by the existence of a crocodile pool, near the cooler spring at the foot of Mangho Pir's hill, with nearly 100 crocodiles, from a few inches to about 15 feet long. It seems that they have migrated from the Hab river nearby after a great flood. The animals are fed with goat flesh. The tomb on the top of the hill is that of Pir Mangho, who is supposed to be a Hindu servant of the Wazir of the King of Kabul and who came here and became a Pir or saint afterwards. A canopy of carved woodwork is an other attraction.

The hot springs near the Leper Asylum are made good use of by its inmates, who come here from many parts of the country. Some special baths are provided for them. With the maximum temperature found to be 126° F., the waters are quite efficacious for the diseases of the skin, rheumatism, kidney trouble, etc. These springs can be turned into a first-class Spa and a sanatorium established within the limits of Greater Karachi. The Orangi valley, in the heart of the hill, also needs development agriculturally. There are perennial springs and pools discovered in it, as artesian waters.

Murad Khan Bund. A fine picnic place, it is on the Hab river nearly 15 miles further towards the west on the Las Bela road. It can be called Murad Khan's folly, as it was not a suitable locality for a Bund or dam across the lower Hab. A small barrage would be profitable here.

5. *Drigh Road.* Nearly 7 miles distant from Karachi further towards the north-east. It is an ideal air-port with excellent runways, aerodromes, the air-ship shed and the Mooring Mast 203 feet high. Tourists will be interested to know that this mooring mast was constructed here for receiving the ill-fated R.101. The air-ship shed is one of the largest in the world, 850 feet long, 200 feet wide and 170 feet high, made of steel all throughout with numerous gangways, runways and staircases. It was supposed to be a "dry-dock" for the air-ships that never arrived.

Mineral oil was suspected in the Drigh Road dome sometime ago, but subsequent drilling has falsified our hopes.

At Drigh Road one can also find the Meteorological Observatory, which supplies weather forecasts to the airport and the proposed industrial satellite.

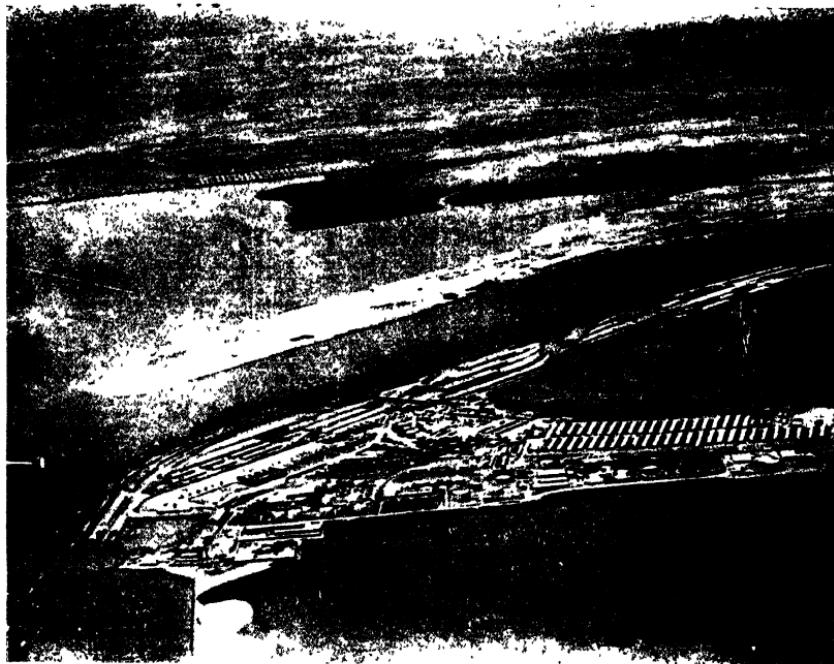
6. *Malir.* The next station, called Malir, is five miles further towards the north-east. It is like an oasis in the desert, situated on the right bank of the Malir river. It has some excellent private wells dug about 40 feet deep into the Malir river alluvium. The water is sparkling clear and very healthy. During the World War II a military station, called New Malir, was established here. There are several private vegetable and fruit gardens, each having a well of its own. Some fruits like Papayas and date palms grow well. It is an ideal place for picnics and excursions, and the climate being drier than that of Karachi, it is suitable as a sanatorium, not very far from the city proper. The Parsees have actually built one near the railway station. Only the dust nuisance and the glare of the sun mar its beauty. A poultry farm has been established by the Government of Sind. There are dairy farms also made and every morning milk from Malir farms is brought to the town on camel-back.

7. *Landhi.* Situated on the other bank of the river Malir, just two miles away and having a railway station, this potential satellite has its conditions similar to those of Malir and the sea-shore is not far. There is a fresh-water spring at a place, called Wagodhar, near the Rehri village, which is a good camping ground. It can also be converted into a first-class garden colony. Oyster shells can be had in plenty on the beach. There are some lignite deposits underground and some gypsum deposits on top of the neighbouring hills. There are Government experimental farms and good agricultural products are obtained from them.

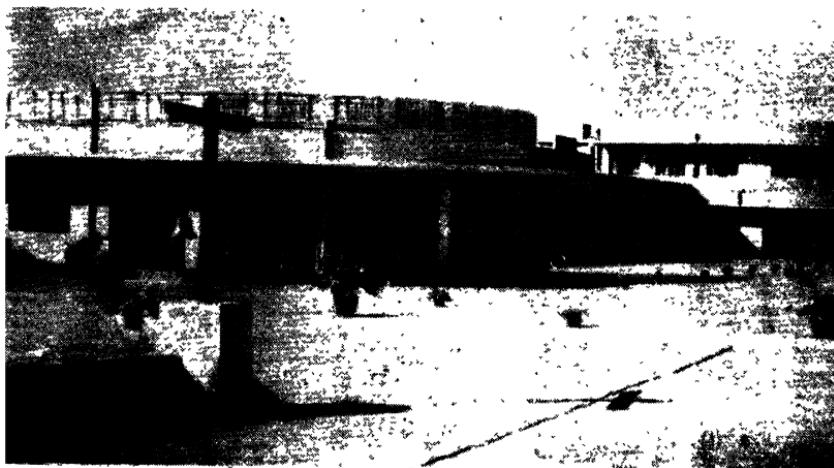
8. *Korangi Creek.* This marine air-port can be reached beyond the Cantonment Station and across the Malir river. As the creek is excellent, it was converted into a

AN INTRODUCTION TO KARACHI

HARBOUR



Aerial photograph showing the Karachi Harbour, West Wharf
and a portion of the City.



sea-plane port during the Second World War and is now continued as such with advantage. The runways being suitable, the landing is more or less perfect, except on some stormy days. In many respects it is preferable to the marine air base near the West Wharfs.

Manchar outcrops and raised beaches can be found in the neighbourhood.

9. *Ibrahim Hydari*. Also called Behram Haidri. It is a small fishing village, situated at the southernmost end of the Clifton Beach, and can be reached by car at low tide. It is suitable for fishing, fish curing and canning.

10. *Ghizri*. Barren limestone hills, 96 feet high, about a mile to the east of Clifton. It has very good stone quarries. As the joint planes in the rocks are irregular and narrow, the stone is quarried in small blocks but it takes a very good polish and has been used in most of the buildings of Karachi. There are lime-kilns in connection with some of the quarries. The climate being bracing and the view towards the sea being pleasant, Ghizri can be converted into a sanatorium, although there is scarcity of water and considerable sand nuisance. Being at the head of the Malir river delta, it was once a prosperous sea-port but it has silted up. Due to the manufacture of cement in the Dalmia factory, most of the stone quarries are now disused. Some good geological sections belonging to the Gaj as well as Manchar beds can be obtained here and a good number of Tertiary fossils can be collected from the rocks. A number of crescent-shaped sand-hills (Burkhans) can be seen near the sea coast.

11. *Clifton*. Old Clifton, about 60 feet in height, is a health resort with some beautiful private bungalows, notably the Mohatta Palace, but most of them are now occupied by the various foreign embassies. It commands an excellent panorama of the sea, the Bath Island, Keamari Harbour, the Oyster Rocks, the Bara and Chota Andais and the Manora Island. Sand nuisance is great even here and it has been inadvertently increased by the construction of a solid stone wall in the direction of the prevailing wind on the west. What is urgently necessary in order to save

this best sea-side health resort of Karachi from being ruined by sand, is some *rigid but permeable* barriers, made of rows of bamboo trellis, dry vegetation or creepers against the inroad of sand and in the direction of the wind, in the valley.

The geological sections round the hill are interesting ; some fine laminated and very soft Manchar sandstones, clays and hard conglomerates, capping them, are exposed. In one of the caves facing the shore line there is a fresh-water spring, underneath the Durgah, situated on the promontory nearby.

New Clifton, beside the Clifton Beach (Clifton-on-Sea), has been much improved after the construction of the Kothari Parade and the Lady Lloyd Pier. It is visited by the citizens in their hundreds, especially on holidays. The Beach here is ideal and is suitable for being converted into a Riviera, which would be a great attraction for people loving sunshine. There are few such extensive sunny shores in this region.

CHAPTER IX

KARACHI'S HINTERLAND -SIND

No book on Karachi can be complete without a reference to its hinterland, upon which its prosperity mostly depends. And Sind, which has given its birth, is the most vital part of this hinterland.

The fact that Karachi has now become the Capital of Pakistan does not alter the situation in any way. Its hinterland cannot be cut off from it. On the contrary, the city has now acquired a greater dignity, as the key to the whole of the hinterland, covering almost all the parts of Western Pakistan. Karachi is the only sea-port for the trade of Sind, West Punjab, N.-W. F. Province and also most parts of the Iran plateau. As such it has a vast, fertile and strategic interior, incomparable with the hinterland of other ports in the sub-continent of India and Pakistan. The upper and lower Indus valleys are clearly interlinked. Beside them lie the plateaus, plains and highlands of the Punjab, the N.-W. F. Province, Baluchistan and Makran.

But Sind being the immediate feeder of Karachi, a description of it would be appropriate in the present handbook. It is time for Karachi to become the most powerful centre for the whole dominion of Pakistan for the pursuit of a political, economic and cultural unity, so greatly needed for such a young State, starting with Sind as its immediate neighbour.

Sind is situated in one of the most critical corners of the eastern world and the most critical corner of Pakistan. It is within the belt of dry lands with very little rainfall it can claim. Even this little precipitation is unsteady and irregular. The thermal equator passes through Sind, and the Tropic of Cancer almost touches it. This makes it one of the hottest and driest regions in Pakistan. It is, again, surrounded by the barren Kirthar mountains on the north-west and west and by the Rajputana desert and the Aravallis on the east. Towards the south, the land is absolutely plastic and swampy, due to the continuously

advancing delta of the Indus. Its only solid link with the rest of the country is the Punjab in the north, the line of free communication between them being through the Indus valley. Its greatest treasure are its rich soil and the Indus waters, which are the very life of Sind. What Sind has lost by way of rainfall it has gained from the system of perennial canals. In fact, it became independent of the monsoon long before it acquired its political independence. But for this Sind would have formed part of the Thar desert. The fertility of the valley is, therefore, accentuated by the surrounding barrenness of solid rocks on the one side and the sea of shifting sands on the other.

SIND A LODESTONE FOR CENTURIES.

Sind has, therefore, attracted peoples from the neighbouring dry and barren lands for long. Ever since the days of Mohenjo Daro, nearly five thousand years ago, hordes of thirsty marauders, aspiring political leaders and honest traders from the Iran Plateau and beyond, either came and went away after ruthless plunder and exploitation, or attempted to settle down in the valley.

Sind has thus formed a critical boundary between the land of Pakistan and parts of other Asiatic, African and European countries. It has also actually been an antechamber for India and Pakistan. Race after race and people after people have passed through it, leaving their influences behind.

Sind's granary has been its chief wealth and hence it has been a lodestone for centuries. Though sparsely populated today, it has harboured a race of noble Hari or cultivators from time immemorial. It has given cotton for clothes and wheat for daily bread to millions upon millions of human beings, and for some thousands of years.

SIND AN "UNHAPPY VALLEY."

With all this, Sind has been branded as "An Unhappy Valley." Why? Because there is no permanency or

stability of settlement in the land. Its natural drainage is the most unstable of all the geographical factors ; it has few classical towns preserved on its only river, unlike the Nile or the Ganges. The uncertainty of water supply and of good crops, unprecedented floods and bad crops or no crops have made the nature of its people impatient and indifferent to all external authorities. The Indus changes its banks and beds in every season. Hill springs and fresh-water lakes come into being and disappear. A whole river, the Hakra, in the eastern desert tracts has already dried up. This instability of water supply means unstable populace, unstable society and unstable government. It has never been attached to one central power for long, though the conquest was easy. It belonged, in the past ages, to big empires, Persian (Iranian), Mau-rian, Arab, Afghan, Mughal and even Greek (European). In the days of the Hindu king Chach, it maintained an empire of its own, extending as far as Kashmir in the north.

THE ARAB CONQUEST OF SIND

The Arab conquest of Sind at the beginning of the 8th century A.D. was unique. The physical geography of the entire region, the highlands, plains, desert lands, river courses, lakes, etc., were in no way hindrances to the progress of the Arab conquerors. They followed the existing Arab trade routes, made new roads, wherever necessary, constructed boat bridges across the rivers and introduced the Arab methods and ways of living in the land.

In three distant ways the influence of Arab civilisation has been felt in Sind : 1. Unity of religion, vast numbers of people, including the rulers, were converted to Islam ; 2. Unity of language, with Sindhi, a mixture of Arabic and Sanskrit as the product, and 3. Unity of culture with such unifications as those of the calendar, customs and manners, dress and food, architecture, music, irrigation canals, agriculture, etc. A remarkable class of Haris,

both Hindu and Muslim, was generated in Sind as a result of the Arab occupation of Sind for nearly three centuries.

A number of Arab tribes still persist in their settlements in West Punjab and Sind, showing how deep-rooted the Arab influence was.

Stagnation, however, started soon after the Arab hold on Sind was gone. It became an easy prey, again and for many centuries, to the neighbouring lands and provinces.

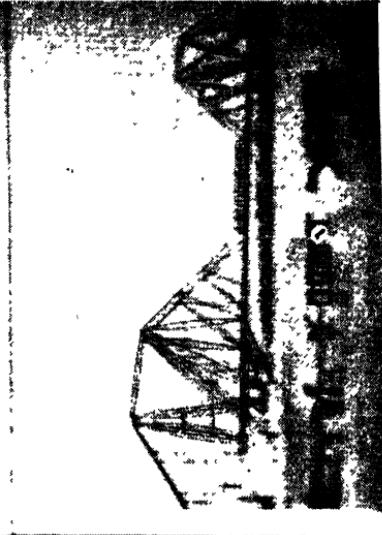
THE BRITISH CONQUEST OF ARID SIND

Again and again, Sind became separated from the shackles of foreign governments and tried to establish its own, but it could not succeed. It did not fare quite well even with the Bombay Government for well nigh a hundred years. Because of its inherent defects, the conquest of Sind was delayed and the Indus valley was annexed by the British as late as 1843. Being only an appendage of the Bombay Government it was always neglected.

But with the opening in 1932 of the Lloyd (Sukkur) Barrage, the institution of the largest irrigation system in the world and the inauguration of autonomy within the province, there rose new hopes of a better, more reliable and more promising life and Government; forsooth, the Barrage is the best gift Sind has received from the British Raj in India.

THE SUKKUR BARRAGE—THE EL DORADO OF SIND.

The Sukkur Barrage is the very heart of Sind and in its right place. Upon the successful flow of the canal waters therefrom, the stability not only of Sind but also of Pakistan depends. It supplies a perennial flow of water to two groups of canals; four of them, the Rohri, the two Khairpur Feeders and the Eastern Nara are on the left bank, while three more, the N. W. canal, the Central



1. The Indus at Sukkur
3. The Sukkur Barrage Gates

2. Sukkur Barrage Canal
4. Suspension Bridge, Sukkur

Rice canal and the Southern Dadu Canal, are on the right bank.

Details are given below :—

Length in Miles	N. W. Canal	Rice Canal	Dadu Canal	Eastern Nara	Rohri Canal	Khairpur West	Feeder Easts
Main Canals	. 36	82	131.6	512.7	208	45	13
Canal Branches	. 171	174	48	202.1	276		200
Distributaries	. 700.7	216	406	1,188	1,887		800
Water courses (old and new).	8,367	6,500	2,910	9,712	20,246		

Thus, there are some 1,028 miles of the main canals, 1,071 miles of canal distributaries and 5,196 miles of water courses, constructed only from one single river, which covers not more than 300 miles from north to south. Besides these, there are nearly 50,000 miles of water courses, old and new.

The Rohri canal alone is 208 miles long, and commands an area of 2,837,000 acres with 1,887 miles of distributaries and 20,246 miles of water courses. What an extraordinary engineering feat this is! Really it is a wonder of the world.

SAFETY OF THE BARRAGE.

In its size, the Sukkur Barrage is 4,725 feet wide, with nearly 2,000 bridges and regulators and 66 sluice gates, capable of holding water upto R. L. 194.6 feet. The piers of the Barrage support two bridges, the Gate Bridge, carrying the gates and the Road Bridge, which is motorable. The Gate Bridge, again, is carried on two massive reinforced concrete arches. As the stone masonry work is suitably set in hydraulic lime mortar and the stone itself is Kirthar limestone, this gigantic engineering structure can be called strong and durable and also creditable to the engineers. But there are some grave risks taken by them in the actual construction.

The Indus river itself is an extremely awkward and uncontrollable one. It is nearly 1,300 miles long on the

unstream side of the Barrage with its early course through the Kashmir territory under perpetual snows, restricted and hindered at every step by the ever-changing glaciers, passing through such stupendous gorges as the Gilgit and thus falling through a height of nearly 12,000 feet and carrying with itself millions of tons of silt in the furious flood waters. During the course of the 17 years of its existence, this ingenious structure has experienced several extraordinary floods, particularly those of 1929, 1930 (before it was opened) and 1942, 1941 and 1948. It is, therefore, not difficult to imagine how much wear and tear there has been, and how much still there is in store for it.

The location of the barrage was difficult to decide upon, for many years. The Records of the Indus River Commission are full of details about the actual courses taken by the river and plotted for over three decades. And it was found that this river changed its course not only every year but also every season in many parts of its aggraded valley, lying in Sind. It was *within the three miles below the Bukkur gorge* that its course was found to be constant, after it had been caught in its narrow neck, so to say, by the opening in the Rohri hills. It was, at last, decided to build the Barrage about three miles below Bukkur and there it is more or less safe. But it must be noted that this location is in the middle of one of the longest and deepest *meanders* of the Indus, at present lying between Chak on one side and Ruk on the other. There is, therefore, the danger of a possible avulsion or cut-off at a critical moment, especially when the river is in spate.

Furthermore, the Indus is an exceptionally active silt-carrying river. This is indirectly a blessing both to West Punjab and Sind, as it fertilises the otherwise famished soil after every crop season. But the disadvantage is that all the silt is *not* carried into the fields but a large part of it is left in the beds, not only of the various canals taking off from it but also of the main river channel. According to Foy the rise of the channel beds in the Punjab is some 10 feet per century, whereas the rise of level in Sind has

been calculated by the present author to be 1 foot per century. According to the Indus River Commission Records the annual amount (average of 29 years from 1901 to 1930) of silt carried at Sukkur is 9,937 million cubic feet. Actually the silt carried into the sea is 1,000,000 tons a day ! Now if the river's flow is hindered by such big engineering works as the Barrage, there is bound to be a check on the silt and much more of it has been dropped on the upstream side of the Barrage than the engineers could dream of. If that is so, the level has risen considerably in the Barrage zone and there is a hydraulic thrust on the pillars, piers, gates and arches of the bridges, far greater now than it must have been in 1932. This has also resulted in recent heavy floods.

Lastly, it must not be forgotten that the Barrage area lies within the Danger Zone of the earth ; in that, with the unsettled condition of the rocks in the neighbouring mountains there is the unsettled condition of the earth in the Indus valley. Every tremour, passing through, the region, is bound to affect the Barrage structure. Unluckily, again, the Barrage lies almost at right angles to the usual path of the earthquake in Sind *viz.* N. W.—S. E. Such an orientation is also an additional risk and care has to be constantly taken to see that all is well with the Barrage after the shocks. The rocks actually belong to the Middle Kirthar group and as such, are interbedded with slippery shales to give an unequal settling at any time especially where there are solution channels in the limestone.

Suffice it to say, the Sukkur Barrage always needs the best attention of the engineers.

ECONOMIC REVOLUTION AFTER THE BARRAGE.

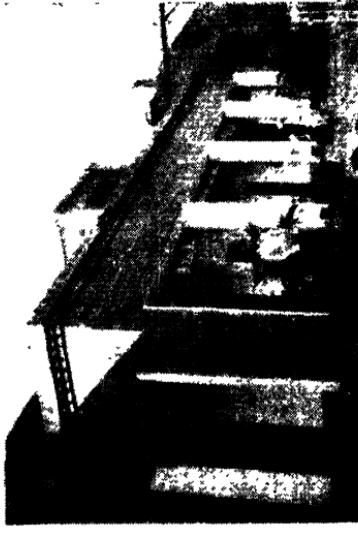
An economic revolution has been, however, brought about by this successful irrigation project, - the functioning of the Barrage irrigation canals. Whatever might be the losses or disadvantages of this huge irrigation system in the non-Barrage area, (and they are not very serious), owing to reduced water supply, and of seepage and water-logging in small areas within the Barrage

zone, there is not the least doubt that crops have improved, irrigated lands have expanded and fields, which were erstwhile lying barren, have bloomed into productive farms of cotton, wheat, rice, etc.

Due to the flowing of the Barrage canals, enough water has been assured, irrigation has become perennial and the crops have surpassed the estimates for 1961-62 even within the first 5 or 6 years. The cotton crops, for example, increased from 3 lakhs acres in 1932 to 8 lakhs in 1935 and 9 lakhs in 1938 and has maintained a steady rise ever since. In the Khairpur State alone the Rabi cultivation increased from the average pre-Barrage yield of 63,846 acres to 133,927 acres in 1936-37, i.e., more than 100%. The percentage has risen substantially during the last decade. Can anything better be expected? Side by side with this, effective research work as regards reclamation of Kalar lands, soil fertility, crop improvements, etc., has been carried on at Sakrand, Dokri, Mir-purkhas and other centres in the province. Horticulture is another new line of development in Sind. Thus all round the agricultural wealth of Sind has increased on account of the Barrage.

The total area commanded by the Barrage in Sind excluding the Khairpur State, which, too, is so greatly benefited by the two powerful feeders, is 7,406,000 acres; of this 5,042,000 acres are expected to be cultivated, as they are cultivable. As the area cultivated before the Barrage was only 2,037,000 acres, the increase in the very first year alone was 437,178 acres. The annual total crop of grain and cotton only is approximately 2,000,000 tons. The results, on the whole, are very promising indeed. Even the population is getting re-mobilised in the Barrage Zone, on the same account.

With the Partition of India into Pakistan and Indian Union, Sind has received a fresh impetus of cultivation and industrialisation, and it has also been a boon to the helpless refugees from beyond the Indo-Pakistan border land.



1. Eastern Nara Canal
2. Khairpur Seepage and Water-logging
3. Khairpur Mirs
4. Chief Engineer's Bungalow, Khairpur State

FINANCIAL ASPECTS OF SEPARATED SIND

That the Barrage is really a great blessing to the people of Sind can be proved very easily in another way. A single instance will suffice. Usually a moderately deep well for irrigation purposes in a field of 5 acres costs Rs. 600, that is, one for one acre costs Rs. 120, over and above the lifting charges, while the water supplied perennially both for the Rabi and the Kharif seasons under the Barrage system costs Rs. 33 only per acre of holding. What a great saving of money and of anxiety besides! Those of the Zamindars or Khatedars, small or big, who are hard-working and who care to cultivate *their own* fields, are bound to make good profits by agriculture alone in future years.

The following are other statistics, showing the financial position of Sind after the Barrage and a little before the outbreak of the Second World War.

Annual Expenditure	... 359 lakhs of rupees.
Annual Revenue	.... 180 lakhs of rupees.
Annual deficit	.... 179 lakhs of rupees.

This deficit was made good as follows :—

Extraordinary receipts from lands towards interest charges	75 lakhs of rupees
Subvention from the Central Government	.... 105 lakhs of rupees.

Besides this, the standing debts of Sind, were 25 crores of rupees, made up as under : -

Previous debts	.... 2.75 crores of rupees.
Barrage debts	.... 22.25 crores of rupees.

There was no great anxiety about such heavy debts, as a substantial amount could be recovered from —

- (1) the Sale of the Barrage (virgin) lands to the extent of 1,725,124 acres and valued at several crores of rupees ;

- (2) the outstandings from Khairpur State and Baluchistan;
- (3) the potentiality of increased yield and land revenue.

Surely, Sind's contribution to the general growth of the Central revenue, owing to its greatly increased crops, was to be considered by the Central Government and a concession given to the province.

POST-WAR SIND

According to the Niemeyer award, a sum of Rs. 75 lakhs had to be annually paid towards the repayment of the debts above referred to and it was estimated that in about 50 years' time, they would be fully paid up.

But the Second World War, though a curse to the whole world, was a blessing in disguise for Sind. Bumper crops were raised during the war years and not only was the Barrage debt fully and honourably repaid to the Central Government but Sind at once became a debt-free and at the same time a *surplus* province. Side by side with this it became incumbent upon the province, when it was actually separated from the trammels of the Bombay Government, by the wish of the majority of its people in 1936, to find ways and means to increase the revenue of Sind.

RURAL RECONSTRUCTION AND COUNTRY PLANNING

No longer could Sind remain stagnant on account of age-old prejudices, religious fads and social restrictions. The changed physical conditions produced corresponding changes in the life of the Sindhis. For thousands of years the people had not changed their ways and habits. Even the bullock-cart remained as old as Mohenjo Daro. The Haris had gone on, generation after generation, with their good old or bad old customs.

Even today the population of Sind is mostly rural. There are only 30 towns worth the name and only two cities, *viz.*, Karachi and Hyderabad, but over 5,000 revenue villages and some 20,000 hamlets with less than 100 or 150 persons in each. All this in an enormous area of land measuring 48,100 square miles.

There were 3,200,000 Muslims out of the total population 4,500,000, according to the census of 1941, with no great caste restrictions or religious prejudices in Sind as in other parts of India. Economics knocked at the door of man-made restrictions and communal ethics. Sind has always been as cosmopolitan and free-thinking a land as it can be, and under the changed conditions offered by the Barrage and the last World War, the people have widened their interests, shaken off their lethargy and, organising their villages had striven for increased production on every side. Life has changed after these millenniums of stagnation and economic indifference, to something more substantial and paying.

Economic interests can no longer be subordinated to social and other considerations, if the province is to rise out of the mire of poverty and misery. The most outstanding event after the successful operation of the Sukkur Barrage is the shifting of the boundaries between economics and ethics in favour of the former.

In the Sind villages, more profitable industrialisation is yet needed by way of cotton gins, oil mills, flour mills, etc., more and more food crops replaced by money crops such as cotton, more and better means of transport and communication, a greater use of scientific implements and, lastly, improved administration. If, again, education is spread also among the women folk and they are made fit for field or factory work along with men, the prospects of Sind would be far brighter than they are today. Good agriculture has followed good engineering in Sind ever since 1932. Now good economics should follow suit. In the words, uttered by a former Governor in Sind, "It is vital to the ultimate economic salvation of Sind that Rabi cultivation should be increased and in order to achieve this as to

attain in some measure a better balanced system of agriculture, it will be necessary to stop the late waterings of the cotton crop in late November and December so as to release water for Rabi crops".

Such and other essential adjustments and also improvements, in the nature of much greater time range for sowing seeds, by producing alternative oil seed crops to wheat, the use of improved strains of seed, more skilled labour and greater supervision are bound to produce still better crops and consequently more wealth for Sind.

SCOPE FOR COLONISATION IN SIND

In such an evolving territory, the population has always got a fillip, and more and more people have been tempted to immigrate and settle down. The population in Sind has always been thin, the density being 93 per square mile, according to the last census. There is, therefore, a tremendous scope for pioneering and colonisation in these regions, the land in the Barrage area being cheap and fertile and water being in good quantity and assured for all seasons, an excellent chance for the rehabilitation of refugees.

Already the population of Sind is noted to have increased from 3,887,070 in 1931 to 4,500,000 in 1941 and the census of 1951 will reveal further extraordinary growth in spite of the fact that some 15 lakhs of Hindus have migrated to the Indian Union. Over 10 lakhs of refugees have already arrived in Sind from India. In fact its strength is remarkably progressive during the last five decades :

1901	....	3,210,910
1911	...	3,513,435
1921	....	3,279,377
1931	....	3,887,070
1941	....	4,500,000
1951	....	10,000,000 (estimated).

POST-PARTITION DAYS

The economy of Sind was greatly disturbed by the unprecedented exodus of the Hindus from Pakistan and the admission of helpless Muslim refugees from the Indian Union during the whole of the last year. But both the Sindhi Muslims and the new Sindhis have filled the void left by the Hindus. Since Sind has so far received nearly 1,000,000 Muslim refugees, the majority of them first found a temporary home in Karachi alone. In spite of this circumstance, there is pressure for food from other parts of Pakistan, especially East Bengal, and thousands of tons of food grain Sind is in a position to export today.

A beginning has been made in the direction of industrialisation in Karachi and Sukkur by establishing the Trading Estates Section of the Industries Department. It has been found that hundreds of industrialists who have migrated here are anxious to start suitable industries in the province, particularly in the directions of hand-looms, soap, glass, fertilisers, cotton and wool industries.

The work of the Lower Sind Barrage, some five miles north of Kotri, has already started. This will help the province to irrigate nearly 28,00,000 acres more of barren land at a cost of 22 crores of rupees.

While the finances of the Sind Government have become sounder and sounder year by year, due to the greatly disturbed conditions of the country after the Partition, the budget for 1948-49 showed a deficit of only 52 lakhs of rupees, to be met with by extra taxation, with the total income of Rs. 843 lakhs revenue and the estimated expenditure of Rs. 895 lakhs, including the cost of the new barrage and other industrial commitments. The loss to Sind due to the transfer of Karachi as the Federal Capital was real and the floods of the last year affected Sind's revenue adversely. Although the prospects for the next year cannot, therefore, be brighter, the resources of Sind both as a food producing and as an industrialised province, are great. In fact, the Sind province has a marvellous

potentiality of reviving and rejuvenating itself at different times in its history.

POTENTIAL WEALTH OF SIND

Actually Sind is capable of developing today on every side. Some potential sources of income, besides pure or mixed agriculture, are enumerated as follows :

1. *Mineral Resources.* In his book on "An Introduction to Pakistan", the present writer has referred to a number of minerals, salts, etc., which, though limited in extent, form the hidden treasure of the province. There are noticed lignite or brown coal, iron ore, alum, gypsum, coloured clays, Fuller's earth, fire-clay, pottery clay, flint, quartz, silica sand etc., in the Tertiary deposits of Kohistan, and saltpetre and other salts, especially sesquicarbonate of soda, found in the salt beds, lakes or Dhands, as they are called, in the Desert area. There are hundreds of alkaline lakes and the possibility of a big Soda industry in Sind, especially the Khaipur State, cannot be ruled out.

An indication of mineral oil at Drigh Road, near Karachi, was given by H. Crookshank in 1927. He recommended a boring in the crest of the neighbouring hill No. 253. Further exploration in this region by the B.O.C. (Pak Concessions) has not yielded any satisfactory result and now we look forward to the new and extensive boring for oil being made at Lakhra near Kotri. It has already reached a depth of nearly 8,000 ft. but without success ! What a revolution in the economics of Karachi and Sind can be brought about by the discovery of petroleum in the lower Indus valley ! Side by side with this, some research is required to be made regarding the possibilities of obtaining precious salts from the sea water and fuel from sea weeds. Limestone is the best natural mineral asset of Sind and there are excellent prospects of Alkali industries also in Sind. Again, there are good chances of manufacturing Plaster of Paris from gypsum, glass from silica sand, cement from limestone, and soda from Kharo Chaniho. Valuable deposits of common salt

have already been discovered in the deltaic parts of the Indus, e.g., Sirganda, Goonee, Wanga Bazar. These, it has been estimated, would last the whole of Sind for over 20,000 years at an allowance of 20 lbs. per head per year !

2. *Fishery.* Sind is very suitable for a first-class trade in fisheries, and this important source of income is yet to be tapped. There are few shores, on which fish flourish in greater numbers and varieties than the Sind coast. The fisher's trade was without doubt flourishing in the days of Mohenjo Daro. The Indus is well known, for example, for its breed of the Palla. Dr. Day, in his report on the Fisheries of India, has referred to some 160 species of marine fishes, such as pomfrets, *surmai*, salmon, rock fish (Khekhra), and prawns, and about 64 species of fresh-water fish. There is thus a tremendous scope for the fish industry under our very eyes. Pearl fishery, as a source of revenue, was known even to the Ameers of Sind. Though the pearls found along the sea coast of Sind are not large and valuable, they are used as medicine for their calcium contents and invigorating power by native Hakims and Vaidis. The oyster fish is in great demand everywhere and prawns are the best and most profitable, if they are canned and exported.

The very first step in connection with this should be an uptodate aquarium to be established at Karachi.

3. *Medicinal Plants.* There are, likewise, a number of medicinal plants, in which Kohistan in Sind is rich and which native medical practitioners have long been using for curing various diseases. Works of a chemical and pharmaceutic nature are, therefore, badly needed for developing this important side of Sind's industries.

4. *Potential Spas.* - There are, again, good prospects of exploiting the potential spas of Sind, which are not less than 16 in number and which would bring, for Sind, a good revenue from those suffering from leprosy, rheumatism, gout, skin diseases, syphilis, etc., for which these mineral waters have been proved very efficacious. Some of them, like those of the Laki Spring, are charged with H S

and their radio-active property, if any, may be estimated. The Hiranand Leper Asylum at Mangho Pir has already proved a great boon to suffering humanity. Likewise, other springs in Sind have to be developed into spas.

5. *Water Resources.* Although the Barrage is such a huge success from the point of view of engineering and increased production in some parts of Sind, there is much to be done in the fields of administration, proper distribution of the canal waters through its branches and distributaries within the Barrage zone and of precautions and improvements of the inundation canals outside it in Upper and Lower Sind. The latest examples of Sind canal breaches should open their eyes.

There are great possibilities of bringing more and more land under cultivation even in the non-Barrage areas, both in the north and in the south, by clearing and reconditioning old Karias or water courses, in plains by forcing the river-water down deserted channels, by constructing suitable bunds across streams in hills for water and soil conservation or by sinking tube-wells and irrigating the fields in which the water-table is sufficiently near the surface within the dry river valleys, from which salts have been and already washed away, e.g., The Baran basin.

Even before the waters of the Indus river were utilised by mankind, prehistoric settlements were made in dry Kohistan in the neighbourhood of springs, in which it abounds. The preservation of these precious sources of water in a waterless region is most essential.

Thus a land, known to be proverbially dry, can be made fit for ploughing, if only water is economised and not allowed to run to waste into the sea. Water is the most precious mineral in Sind, as it is in other parts of W. Pakistan.

6. *Communication Lines.* Now that crops are rapidly increasing, better lines of communication on all sides are needed. More branch railways, more and better motorable trunk roads and more systematic 'Kutcha' roads and camel paths should be spread all over, so that the products of the whole hinterland of Western Pakistan

may be easily and rapidly brought to Karachi, the only exporting port of the region.

A direct railway to Quetta, *via* the Las Bela State, would open out a fresh and fertile hinterland for the Karachi harbour.

7. *Industrialisation.* There is considerable scope also for improving and developing all the indigenous arts and crafts, for which Sind was known early in the days of Mohenjo Daro, 5000 years ago. Even today there are centres in Sind famous for some wonderful handwork, e.g., Halla potteries, Lukman lacquer work, Tatta and Gambat bed-covers or Charsas, Ranipur Farasis or woollen carpets, Sind stucco work and Ghotki brass work. Mrs. Hamid Ali, presiding over an Arts and Crafts Swadeshi Exhibition, held at the Sharda Mandir, Karachi, some years ago, rightly said :

“ We have no eyes to see what beautiful things are made in our country. So many phases of culture have passed away in our land. We show a cultural life equal to any in the world. “ Culture knows no boundaries of oceans or mountains ; culture unites people of different hemispheres. Sind is just the right place to hold an Arts and Crafts Exhibition. It has the most beautiful textiles, influenced by Arab, Persian and Central Asian, also perhaps, Greek Art. Its embroideries have a wonderful resemblance to the Balkan and Roumanian peas embroidery and is very similar to that of Gujarat (Surat), Kathiawar, Rajputana and the Punjab, —both in stitches and in feeling, made manifest by the artistic blending of colours. I believe that two or three hundred years ago, some Georgian family came and settled down in Siud. It is interesting to connect their coming to Sind with the ‘ Hurmiz ’ embroidery, which has gradually spread to the Punjab and is known in Gujarat (Surat and Navsari) as the Bhul-bhulamni Stitch.”

Again, the monochromatic prospect, presented by the vast plains of the Indus, always cries out for colours and so we have likewise in Sind such wonderful and brilliant colour-schemes of glazed tiles, costumes, etc.

Thus there is an undoubted chance of reviving these arts and crafts in Sind and thereby increasing the earning power and prosperity of the people, especially the women folk.

As time goes on, the whole province has to be industrialised in such a way that there is dove-tailing of the Sind cottage industries with the schemes of long-term industrial planning to be carried out in the entire dominion of Pakistan.

FUTURE PROGRESS OF SIND

It is when the cultivable land will virtually coincide with the cultivated area, the rather conservative fatalist Haris change their ways and methods of cultivation, enterprising industrialists, economists and landlords join hands cordially with the Government and improvements are made in agricultural implements, skilled labour, selection of seeds and rotation of crops, and it is when more barrages are made and small cottage and large-scale industries suitable to the nature of the land are started side by side that the wealth of Sind will further increase and with it the welfare of its people. What with the widely used language of Sindhi, which itself is a mixture of Sanskrit (Aryan) and modern Persian (Semitic), the single caste of the Islamic religious system, the land tenure which is not confined to the Muslim or the Hindu populace, the canal distributaries which pass through all varieties of districts, soils and states, and even with the latest, though inadequate, instalments of political reforms, Sind is becoming more and more democratic and useful. Better education of a practical nature, a better out-look on life, a better organisation of labour and better communication and economic developments will make it not only happy but healthy, not only settled but self-satisfied, not only civilised but also great in the eyes of the nations. When Sind finally comes into its own, now that it has achieved its independence within the State of Pakistan and its political emancipation under the Reforms, it will have a great day for itself.

The Sindhis, as a rule, are not content with the acceptance of the natural conditions as they exist and become slaves to them but they are now in a position to re-shape their environment to their needs. Planning has started in right earnest. The post-Barrage conditions of irrigation and agriculture began to alter the life of the masses to a certain extent. Little time was lost between the reaping of the winter crops and the sowing of the summer ones. No longer did lands lie fallow in Sind, no longer did Kismat alone make a Hari rich or poor. Not as a marauder now but as a settler, man has ample opportunities to make Sind more fertile, more peaceful and prosperous, to withstand the ravages of time, to conquer the vagaries of the great river, the severities of the climate and the prejudices of ancient days. With increasing facilities and amenities of life, man is likely to progress materially and morally in the region, where nature is such a hard task-master. The Barrage has solved the problem of water supply for a large part of Sind for all times; it now rests with the agriculturists and the economists to adjust the market and make it always the financial success it deserves to be.

* * * *

The lure of the Indus has always been great. Whoever settles down on its banks, never regrets. Whoever eats the Pulla river fish, never wants to leave Sind. And now that the Barrage has so greatly increased its importance and the supply of water is assured, its population will also stabilise and grow, its domestic happiness will increase and its future welfare will be assured. Sind may not be very rich in its mineral wealth, because it is largely made of Tertiary rocks *minus* their big oil and coal deposits; but it excels in its spiritual and Sufi heritage. Sind is not lost, because it has been resuscitated by modern man and Sind is not dead, because it has been rejuvenated. The Lloyd Barrage has, indeed, proved to be the Heart of Sind, forcefully circulating the waters of life through its very veins and arteries. Two more barrages in Sind and the future of the Province is assured. Further prosperity can be expected by conserving soil and water resources in the Kohistan region and by reviving the Thar desert.

CHAPTER X

THE FUTURE OF KARACHI

Karachi, the young capital of the still younger State of Pakistan, needs all the care and attention that can be given to it. Though young, it has inherited the age-old civilisation of the Indus valley and has been influenced by the geographical characteristics of the Kohistan region and of the Indus delta land. As such it has a potentiality all its own, and if scientifically extended and wisely administered, it can rival with other great cities of the world. As it has been but haphazardly built in the past and its population has increased inordinately and as it has its mainstay of water supply unstable and its drainage system insecure, only a Master Plan can save it from a catastrophe.

Both the physical environment and the climatic conditions are favourable to its growth. Plentiful sunshine and cool breezes are Karachi's natural assets. There is no dearth of good building materials and inspite of a scanty and variable rainfall, there are some valuable underground water resources in its neighbourhood. At the same time, Karachi has vast grounds for expansion almost on every side and its harbour is swelling with the ever-increasing trade, as evidenced by the numerous ships from and to many ports of the world. No harbour has risen so rapidly and so well. Even its air ports and sea-plane ports are flourishing in every way, being on the world air routes.

But Karachi has reached the saturation point in its population. Although some hundreds of thousands of Hindus have left it after the Partition, the influx of Muslim refugees is so unprecedented and unhampered that the city is now extremely congested, its sewers overflow now and again and its hospitals are burdened with patients suffering from various diseases. Karachi's housing problem is particularly acute. While parts of the city, such as the Old Town and the Lyari quarters had already been

overpopulated, today not even a room is found vacant anywhere. So great was the rush for the colonies lately along the Bundar Road Extension that a veritable cancer of a ribbon growth has been formed. In fact, the city is in urgent need of an Improvement Trust. Karachi was erstwhile called "the cleanest city in India". But this reputation has now been jeopardised.

The principle, on which Karachi can be further expanded, is a system of satellites, which has been described in the body of this book. There is no other way of enlarging it into Greater Karachi. Luckily our city possesses the nuclei of such satellite towns round about it, e.g., a much needed industrial satellite, a labour colony, a garden colony, a military station, a hill-station and a University township, all in their proper places. It requires a judicious method of zoning, community grouping and spacing to provide for its lungs and recreational centres. Its population may be centripetal as a rule, but its circumference should be so widened that no deterioration is unnecessarily caused at the centre, in later years. Let us learn from the examples of other cities in the world. Le Corbusier's conception of the *Cities of Tomorrow* is four-fold, viz., decongestion at the centre, uniform augmentation of the density, a reasonable increase of the means of getting about and a provision for recreation. Such a conception is quite in conformity with our proposal for establishing a satellite system for Karachi. Radha Kamal Mukherjee has also suggested that while planning Indian cities, the traditional character and the expression of creative impulses should never be lost sight of. Pakistan, indeed, needs such an oriental expression to be given to its capital. Abercrombie in his scheme of planning British cities has already given a warning: "There is danger in too sudden growth,—an onrush of prosperity, which has the effect of submerging efforts at comfort and design. This has frequently happened in the case of capital cities. Athens and Rome show smaller traces of planning than less famous contemporary places; London, in spite of Wren's plan and the subsequent efforts of the big ground landlords, has sprawled in shapeless confusion.

The picture, which the plan of an industrial town conjures up, is even more vivid : that of Belfast, for example, suggests a town begun in a leisurely manner, with a designed centre, not indeed very remarkable but having the dignity of a large central square, where stands the City Hall : a regular, artificial and urban arrangement. But it has been suddenly overwhelmed by a rush of prosperity : the lava streams of erupting urbanism seem to flow blindly in natural devastating confusion. The whole of the nineteenth century outburst of town-building was likened by Cobbett, to an epidemic of wens, with London as the *great wen*. And the wen, though it depends upon human sustenance, is beyond human control.”

MAKING OF AN IDEAL CITY

Great care has to be exercised by the administrators to see that Karachi with its proverbial prosperity and its favourable situation, does not become the great wen of Pakistan, by the internal pressure of a hybrid population. To be an ideal city, it has to develop in every way. Karachi has not had time to become historically famous. In fact, there is too little history in the city, while there is certainly too much geography. Even its educational institutions are comparatively young and they are not quite flourishing due to a patchwork of policies and ideologies. There has been practically no planning of its industries, few as they are. Whoever finds some open space, within the heart of the city and its extensions, puts up a factory or mill, which adds to the intolerable nuisance of smoke and noise. And it is very doubtful whether the new Industrial Trading Estate has been properly located. Agricultural industries, which need cheap water, power and labour, should not be included in such an estate, within the limits of the city. Due to the pressure of increasing population, the city systems of water supply and drainage have become intolerable. In fact, Karachi has now become a city of many problems. And yet it has the making of an ideal city. Much good water running to waste into the sea or the underground has to be saved.

Both the Hab and the Orangi are perennial water channels, which should be developed, so that at least for industrial and other purposes, if not for drinking, they may be utilised. In this manner, even the Malir valley, particularly its upper reaches, can be developed, so that more food, more fodder and milk can be supplied to Greater Karachi. There are thousands of acres of good and cultivable land within 15 miles from Karachi, particularly in the Konkan area in the Malir valley, for such a use. The soil in the Karachi city itself, poor as it is in the mineral contents, can be improved by means of organic manures, secured by composting refugee and town waste.

The Keamari harbour area also needs expansion. Parts of the Chinna Creek should be reclaimed and even the islands of Baba, Bhit and Shampsit utilised for the purpose of dry docks.

Defence measures have yet to be taken to save the city from land, sea and air attacks. Above all, Karachi's winds and tides have to be profitably harnessed, where both coal and electricity are so scarce.

A new socio-economic set up is needed in the matter of rehabilitating the numerous refugees, who have arrived here. Some suitable economic adjustments can be made in the different strata of their society and more colonies built according to a plan, such as that of the Nazimabad Colony.

An ideal city is likened to a human body, which consists of several distinct systems separately provided and yet made interdependent of one another, thereby becoming a perfect social organism, with a personality of its own. Luckily for Karachi the different communities, particularly the minority communities, have given their-share in the development of its many parts and quarters and there is no dearth of charity found in its public and private institutions. Let Karachi be made a really vital organism in Pakistan. Further means for the city's growth and development may be summed up as under :

1. A purge of the superfluous portion of the population, that is not needed for the daily run of life ;

2. An Improvement Trust with powers to replan the most congested parts of the city on the principles of cleanliness, comfort and culture ;

3. An immediate overhauling of the water supply with its related system of underground drainage ;

4. A Master Plan of Greater Karachi with several potential satellites on the basis of a well-integrated urban system ;

5. A vigorous campaign against the nuisance of dust and dirt, smoke and stench, mosquitoes and flies ;

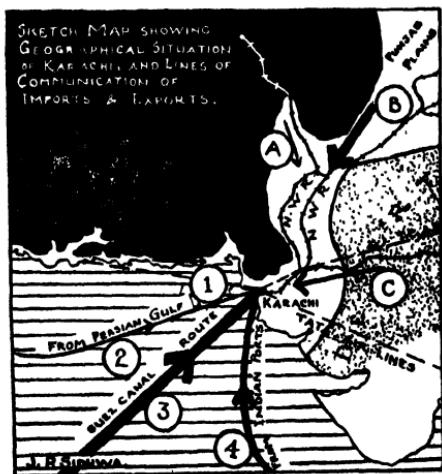
6. A powerful University Centre with a provision for post-graduate studies and research for the betterment of the whole city and its environs, particularly in the directions of land utilisation, housing, sanitation, public health, industrial development and harbour expansion.

7. An Inter-communal Cultural Centre for the promotion of harmony and good-will among the different communities, that are brought together here by Nature.

* * *

Reviewing the prospects of Karachi as a port in 1890, Alexander Baillie, in his monograph on '*Kurrachee : Past, Present and Future*', remarked: "The value of Karachi as a Military Basis has been recognised by many of the highest authorities from Sir Charles Napier, who knew it fifty years ago, to Sir Charles Dilke, Lord Brassey and Lady Dufferin, who visited it recently. Its importance as a great Commercial Mart depends mainly on a direct line of communication with Eastern and Upper India, the construction of which I have advocated not in the interest of *Kurrachee* alone, but as the means of increasing the trade and commerce between Great Britain and her Empire in Asia ; of adding largely to the food supplies for home use ; of affording greater facilities for the defence of our possessions ; of minimising the chronic state of scarcity or famine, to which thousands of our fellow beings in Rajputana are constantly subjected and of shedding upon them some rays of that prosperity, which our own land has so long

enjoyed, to relieve their misery and to brighten their existence." Mother of many future cities of Pakistan, this is Karachi's merit or demerit, as it may be called,—not around a Juma Masjid, but around a Juna Market it has come into being and grown. It has been very successful as a transit city so far. It must soon be a well-planned industrial city as well as the Mecca of Pakistan. Whether it was for small trades of fishery or agricultural exports by the indigenous population in the pre-British period, or for the exploitation of our country by the foreigners or for the amelioration of the economic conditions of the peoples of the neighbouring lands, Karachi *has fulfilled its task admirably well*. By the establishment of the Government of Pakistan in the city as its federal Capital, it has gained in dignity and freshness of life. Its future is bound to be bright and prosperous in every way, if the moral values in its rapidly flourishing economics are properly realised.



APPENDIX I

MISCELLANEOUS INFORMATION

1. THE NATIONAL FLAG

Flying on top of Karachi's public buildings and the Government House, the visitor will find the National Flag of Pakistan, of which the dark green cloth with the white crescent and the heraldic star, also in white, represents the Muslim League, while the white vertical strip along-side the mast (one fourth of the size of the rectangular flag) represents the rest of the nation. It reminds one of the solidarity and unity of the different peoples, inhabiting the whole dominion of Pakistan. H. E. Al-Haj Khwaja Nazimmudin has said: "The minorities in Pakistan should not only expect full freedom but should also cherish the hope that the majority community will appreciate their contribution and will extend to them respectful treatment."

2. PAKISTAN CURRENCY

One-rupee, half-rupee and quarter-rupee coins made of pure nickel and milled on the edge with a serrated milling.

Two-anna coins and one-anna coins made of cupro-nickel alloy (75% copper and 25% nickel).

Single pice made of bronze alloy (97% copper, 2½% zinc and ½% tin).

Paper Currency. Notes of Rupee one, Rupees two, five, ten and one hundred.

3. FOREIGN EXCHANGE AND EQUIVALENCE

		Rs.
1 pound (U.K.)	..	13.36
1 dollar (U.S.A.)	...	3.315
1 dollar (Canada)	...	3.315
1 franc (France)	...	.028
1 frano (Swiss)	...	.781
1 dollar (Strait Settlements)	..	1.75

			Rs.
1 dollar (Hongkong) ...		=	1.190
1 piastre (Egypt) ...		=	.137
1 lira (Italy) ...		=	.007
1 gulden (Java) ...		=	1.274
1 peso (Mexico) ...		=	.689
1 pound (Australia) ...		=	10.680
1 peso (Manila) ...		=	.689

4. MAX. AND MIN. TEMPERATURES, RANGE OF TEMPERATURE AND RAINFALL AT KARACHI (MANORA).

(Average of 10 years)

Month	Max. T. (F)	Min. T. (F)	Monthly Range of T. (Degrees F)	Rainfall Inches	Humidity (%)
January	75.1	56.9	18.2	0.39	61
February	77.2	62.4	14.8	0.61	67
March	81.4	67.1	14.3	0.30	71
April	85.0	74.2	10.8	0.50	76
May	88.1	79.4	8.7	0.02	78
June	89.9	82.4	7.5	0.31	79
July	81.6	80.6	1.0	5.78	82
August	85.3	78.1	6.2	1.57	84
September	85.1	76.7	8.4	0.10	82
October	86.8	74.2	12.6	0.00	74
November	85.8	66.7	19.1	0.01	62
December	79.3	61.1	18.2	0.01	58

Annual 9.48

5. WIND SYSTEM AT KARACHI

(Average of 20 years)

Season	...	Wind direction	No. of days during the year	Velocity (Average) M.P.H.-
Cold season	...	N.W.	35	6.5
		Calm	25	
		N.	33	
Dry hot season	...	N.E.	69	12.0
		E.	16	
		S.E.	4	
Monsoon	...	S.	3	11.7
		S.W.	50	
		W.	130	

6. A BIBLIOGRAPHY OF KARACHI AND SIND

W. T. Blanford—"The Geology of Western Sind" 1879. Mem. Geol. Sur. Ind. Vol. XVII, Pt. 1.

J. A. Murray—"Geology, Botany and Zoology of Sind" 1880.

R. D. Oldham—"The Sandhills of Clifton, near Karachi", 1901. Mem. Geol. Sur. Ind. Vol. XXXIV, Pt. 3.

H. Evan M. James—"Memoirs of Seth Naomal Hotchand, C.S.I. (1804 to 1879)" 1915.

A. F. Baillie—"Karachi Past, Present and Future 1890.

A. W. Hughes—"A Gazetteer of the Province of Sind", 1876.

Mesham Lea—"Report on the Karachi Water Works", 1917.

Jethmal Parsram—"Sind and the Sufis", 1924.

N. M. Billimoria—"Bibliography of Publications on Sind and Baluchistan", 1930.

Jamshed Nusserwanjee—"Problem of Water Supply for the City of Karachi", 1934.

G. T. Wrench—" Healthy Soil and Healthy People with special references to the Karachi Taluka ", 1940.

K. R. Bhide—" Karachi Water Works ", 1940.

A. A. Musto—" Sukkur Barrage Canals Project ", 1922.

“ The Future of Sind Sukkur Barrage Scheme ”, 1923.

Mirza Kalichbeg Fredunbeg—" A History of Sind (Chachnameh)" Vols. I and II, 1900 and 1902.

John Marshall—" Mohanjo Daro and the Indus Civilisation ", Vols. I and II, 1931.

Maneck B. Pithawalla—" A Geographical Analysis of the Lower Indus Basin ", Parts I, II and III (D Sc. thesis), 1936—1939.

“ The Potential Spas of Sind ”, 1938.

“ Karachi Water Supply ”, 1936.

“ Problems of Greater Karachi ”, 1939

“ Sind's Changing Map ”,—An Album of 51 maps ”, 1938.

“ Historical Geography of Sind ” Parts I, II and III, 1936-1937.

“ Settlements in the Lower Indus Basin (Sind)”, Part I and II, 1938

“ The Problem of Communications in Sind ”, 1939.

“ Geology and Geography of Karachi and Its Neighbourhood ”, Parts I, and II, 1946.

“ An Introduction to Pakistan - Its Resources and Potentialities ”, 1948.

“ Reclaiming the Indian Desert ”, 1948.

APPENDIX II

ITINERARIES OF KARACHI

1. *Karachi in One Day.* The following itinerary is given to "do" Karachi in one day by a "bird of passage". Most of the suburbs would have to be omitted and the journey completed without much halting. The maximum distance from the hotel to the sights will be about 10 miles.

Route to be taken	MORNING	Route to be taken	AFTERNOON
Kutchery Road.	Palace Hotel. Karachi Gymkhana. Sind Governor's House. Jinnah Courts (Students' hostel). State Bank of Pakistan. Burns Gardens. The Sind Colleges. Parsee Dar-i-Meher.	Havelock Road Victoria Rd.	Governor-General's House. Y.M.C.A. Sind Club Frere Hall. Victoria Museum.
Bundar Road	Municipal Office. Boulton Market. Merewether Tower. Port Trust. Customs House. Native Jetty. Napier's Obelisk. Napier Mole. Keamari Harbour.	Kings' Way Queen's Way Preedy Road	Chief Court of Sind. Pakistan Parliament and Assembly Hall. Mahatma Gandhi's Statue. Pakistan Secretariat. Saddar Bazar.
(Return journey)		Clarke Street Ingle Road	The Convent. Napier Barracks (Sind Govt. Secretariat).
Harris Road,	Old Town.	Hospital Road	Golf Course. Pakistan Military Hospital.
Embankment Road, Pilgrim Road.	Dhobi Ghat. Old Lyari.	(Return journey)	
Mangho Pir Road.	Hindu Cremation ground. Sewage Farm. Mangho Pir hot springs. Leper Asylum. Crocodile Pool.	Adam Road Jehangir Ko-thari Road. Ghizri Road	Race Course. Parsee Towers of Silence. Honey Moon Lodge. Bath Island. Ghizri Hill Quarries. Pir Illahi Bax Colony

Route to be taken	Morning	Route to be taken	Afternoon
<i>(Return journey)</i>			
Garden Road	Gandhi Garden and Zoo	Clifton Road	Old Clifton. Ack Ack School.
Bunder Road Extension.	Katrak Paisee Colony. Cosmopolitan Colonies. Exhibition Hill. Quaid-i-Azam's Grave. Islamia College. Sydenham Reservoir. District Jail.		Ministry of Foreign Affairs and Commonwealth Relations. Foreign Embassies. New Clifton—Kothari Parade. Lady Lloyd Pier.
<i>(Return journey)</i>			
Mohammad Ali Jinnah Road.	Ida Rieu Home. U.S.A. Embassy		
Victoria Road Elphinstone Street.	Scottish Kirk. Holy Trinity Church.		
Flag Staff Lines	Flag Staff House.		

NOTE.—Any time that can be spared in the evening may be employed in a stroll on the Clifton Beach.

2. *Karachi in Three Days.* Three-day visitors to Karachi will find ample time to "do" most of the first-rate and several of the secondary sights. Some of the satellites of Karachi can also be conveniently visited.

FIRST DAY

SECOND DAY

THIRD DAY

Route to be taken.

Route to be taken.

Route to be taken.

Morning (to Keamari)

Morning (to Korangi Creek)

Morning (to Drigh Road).

Kutchery Road.	Palace Hotel.	Scandal Point	Cantonment	Railway	Strachan Road	Seva Kunj.
	Sind Governor's House.	Road.	Station.	Napier Road	.. Dawn.	Office.
	Jinnah Courts.		Golf Links.	Bundar Road	Civil Hospital.	
	State Bank of Pakistan.		Polo Ground.		Dow Medical College.	
Bundar Road	The Colleges.		Race Course.		Sind University.	
	Municipal Office.		Rest Camp.		Y. W. C. A.	
	Denso Hall.		Military Hospital	Elphinstone	Saddar Bazar.	
	Mereweather Tower.		Military Hospital	Street.	The Convent.	
	Boulton Market.		Adam Road	Scandal Point	Napier Barracks.	
	Old Town.			Road.		
	Customs House.		Honey Moon Lodge.			
	Port Trust Office.		Parsee Towers of			
	Native Jetty.		Silence.	Hospital Road	Military Hospital.	
	Napier's Obelisk.		Ibrahim Hydar.		N.W.R. Carriage Shops.	
	Keamari.		Korangi Creek.		Christian Cemetery.	
			Sea-plane port.			
Napier Road.	Mole		Drigh Road.		Government Dairy.	
	Keamari.				Air Port.	
					Air-ship Shed.	
					Observatory.	

(Return journey)

New Queen's Road.	Beach Luxury Hotel.
	Karachi Club Annex.
	Radio Pakistan.
	Intelligence School.
	H.M.P.S. Dilawar.
	Rifle Butts.

Afternoon (to Mangho Pir).

Afternoon (to Mangho Pir)		Afternoon (to Clifton and Ghizri)	
Havelock Road	Governor-General's House.	Kutchery Road	Frere Town.
	Y.M.C.A..	Frere Road	Frere Hall.
Victoria Road	Sind Club.	Victoria Road	Victoria Museum.
	Trinity Church.	McLeod Road	Banks etc.
	Scottish Kirk.	Jehangir Kothari Road.	Bath Island.
Garden Road	Gandhi Garden.	Ghizri Road	Ghizri Quarries.
Mangho Road.	Pir The Lyari River.	Clifton Road	Ghizri harbour.
	Hindu Cremation Ground.		
	Industrial Estates.	Ack Ack School.	
	Mangho Pir	Old Clifton.	
	Hot Springs.	Ministry of Foreign Affairs and Common-wealth Realations.	
	Leper Asylum.	Mohatta Palace.	
	Crocodile Pool.	Foreign Embassies.	
		New Clifton.	
		Kothari Parade.	
		Lady Lloyd Pier.	

(Return journey)

Lawrence Road.	Mills and Factories.	Clayton Road	Islamia College.
Strachan Road	Burns Garden.	Jehangir Seth-na Road.	High Commissioner for India Office.
Kutchery Road.		Bundar Road	Exhibition Hill.
			Quaid-i-Azam's Grave.

N.B.—The end of each day may be delightfully spent in one of the suburbs, provided drinking water is carried by the visitors in their flasks. It is dangerous to drink water locally.

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(15-8-1948).

THE HINDU, Madras.

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PAKISTAN MONTHLY, Karachi.

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His book shall prove very disappointing to those who were waiting for the economic collapse of the infant State.

THE MUSLIM ECONOMIST, Lahore.

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